1508/1097.

GENERAL VIEW

OF THE

AGRICULTURE

OF THE

COUNTY of SOMERSET,

WITH

OBSERVATIONS

ON

THE MEANS OF ITS IMPROVEMENT.

DRAWN UP IN THE YEAR 1795,

FOR THE CONSIDERATION OF THE BOARD OF AGRICULTURE AND INTERNAL IMPROVEMENT.

BY

JOHN BILLINGSLEY, Esq;

Of ASHWICK-GROVE, near SHEPTON-MALLET.

AND NOW RE-PRINTED

With considerable ADDITIONS and AMENDMENTS,

Accompanied with the REMARKS of some respectable GENTLEMEN and FARMERS in the COUNTY.

In urbe luxurus creatur: Ex luxuria exiſtat avaritia neceſſe eſt: Ex avaritia erumpit audacia; Inde omnia scelera ac maleficia gignuntur. Vita autem hæc rustica quam tu *agrestim* vocas, parsimoniæ diligentiæ, justitiæ magistra est.

Tullii Orat. pro Sext. Roscio.

The City creates luxury; from luxury necessarily proceeds rapaciousness; and from rapaciousness breaks forth insolence: Thence are engendered all villainy and wicked deeds: But this country life, which you call clowniſh, *is the regulator of œconomy, industry, and justice.*

BATH,

PRINTED BY R. CRUTTWELL, FOR THE AUTHOR;

AND SOLD BY

C. DILLY, POULTRY, LONDON.

MDCC XCVII.

BRITISH MUSEUM

THE

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2 NO 66

PLAN

FOR RE-PRINTING THE

AGRICULTURAL SURVEYS.

BY THE

PRESIDENT

OF THE BOARD OF AGRICULTURE.

A BOARD eſtabliſhed for the purpoſe of making every eſſential enquiry, into the Agricultural State, and the means of promoting the internal improvement of a powerful Empire, will neceſſarily have it in view, to examine the ſources of publick proſperity, in regard to various important particulars. Perhaps the following is the moſt natural order for carrying on ſuch important inveſtigations; namely, to aſcertain,

1. The riches to be obtained from the ſurface of the national territory.
2. The mineral or ſubterraneous treaſures of which the country is poſſeſſed.
3. The wealth to be derived from its ſtreams, rivers, canals, inland navigations, coaſts, and fiſheries. And,
4. The means of promoting the improvement of the people in regard to their health, induſtry, and morals, founded on a *ſtatiſtical* ſurvey, or a minute and careful enquiry into the actual ſtate of every parochial diſtrict in the kingdom, and the circumſtances of its inhabitants.

Under one or other of theſe heads, every point of real importance, that can tend to promote the general happineſs of a great nation, ſeems to be included.

Inveſtigations of ſo extenſive and ſo complicated a nature muſt require, it is evident, a conſiderable ſpace of time before they can be completed. Differing indeed in many reſpects from each other, it is better perhaps that they ſhould be undertaken at different periods, and ſeparately conſidered. Under that impreſſion, the Board of Agriculture has hitherto directed its attention to the firſt point only, namely, the cultivation of the ſurface, and the reſources to be derived from it.

That the facts eſſential for ſuch an inveſtigation might be collected with more celerity and advantage, a number of intelligent and reſpectable individuals were appointed, to furniſh the Board with accounts of the ſtate of huſbandry, and the means of improving the different diſtricts of the kingdom. The returns they ſent were printed, and circulated by every means the Board of Agriculture could deviſe, in the diſtricts to which they reſpectively related; and in conſequence of that circulation, a great maſs of additional valuable information has been obtained. For the purpoſe of communicating that information to the publick in general, but more eſpecially to thoſe counties the moſt intereſted therein, the Board has reſolved to reprint the Survey of each County, as ſoon as it ſeemed to be fit for publication; and among ſeveral equally advanced, the counties of Norfolk and Lancaſter were pitched upon for the commencement of the propoſed publication; it being thought moſt adviſable to begin with one county on the Eaſtern, and another on the Weſtern coaſt of the Iſland. When all theſe Surveys ſhall have been thus re-printed, it will be attended with little difficulty to draw up an abſtract of the whole (which will not probably exceed

exceed two or three volumes quarto) to be laid before his Majeſty, and both Houſes of Parliament; and afterwards a general Report on the preſent ſtate of the country, and the means of its improvement, may be ſyſtematically arranged, according to the various ſubjects connected with agriculture. Thus every individual in the kingdom may have,

1. An account of the huſbandry of his own particular county; or,
2. A general view of the agricultural ſtate of the kingdom at large, according to the counties, or diſtricts, into which it is divided; or,
3. An arranged ſyſtem of information on agricultural ſubjects, whether accumulated by the Board ſince its eſtabliſhment, or previouſly known;

And thus information reſpecting the ſtate of the kingdom, and Agricultural knowledge in general, will be attainable with every poſſible advantage.

In re-printing theſe Reports, it was judged neceſſary, that they ſhould be drawn up according to one uniform model; and after fully conſidering the ſubject, the following form was pitched upon, as one that would include in it all the particulars which it was neceſſary to notice in an Agricultural Survey. As the other Reports will be re-printed in the ſame manner, the reader will thus be enabled to find out at once, where any point is treated of, to which he may wiſh to direct his attention.

PLAN OF THE RE-PRINTED REPORTS.

Preliminary Obſervations.

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SECT. 1.—Situation and Extent.
2.—Diviſions.
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3.—Hay Harveſt.
4.—Feeding.

IX. Gardens and Orchards.

X. Woods and Plantations.

XI. Waſtes.

XII. Improvements.
SECT. 1.—Draining.
2.—Paring and Burning.
3.—Manuring.
4.—Weeding.
5.—Watering.

---

* Where the quantity is conſiderable, the information reſpecting the crops commonly cultivated may be arranged under the following heads:

1. Preparation { tillage, manure. }
2. Sort.
3. Steeping.
4. Seed (quantity ſown.)
5. Time of ſowing.
6. Culture whilſt growing { hoe, weeding, feeding. }
7. Harveſt.
8. Threſhing.
9. Produce.
10. Manufacture of bread.

In general the ſame heads will ſuit the following grains:
Barley. Oats. Beans. Rye. Peaſe. Buck-wheat.
Vetches - - - Application.
Cole-ſeed - { Feeding, Seed. }
Turnips - - { Drawn - - - - - - - Fed - - - - - - - - - Kept on graſs - - - —— in houſes - - - }

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Appendix.

PERFECTION in ſuch inquiries is not in the power of any body of men to obtain at once, whatever may be the extent of their views, or the vigour of their exertions. If Lewis XIV. eager to have his kingdom known, and poſſeſſed of boundleſs power to effect it, failed ſo much in the attempt, that of all the provinces in his kingdom, only one was ſo deſcribed as to ſecure the approbation of poſterity;* it will not be thought ſtrange that a Board, poſſeſſed of means ſo extremely limited, ſhould find it difficult to reach even that degree of perfection which, perhaps, might have

* See Voltaire's Age of Lewis XIV. vol. ii. p. 127, 128, edit. 1752. The following extract from that work will explain the circumſtance above alluded to.

"Lewis had no Colbert, nor Louvois, when about the year 1698, "for the inſtruction of the Duke of Burgundy, he ordered each of the "intendants to draw up a particular deſcription of his province. By "this means an exact account of the kingdom might have been ob- "tained, and a juſt enumeration of the inhabitants. It was an uſeful "work, though all the intendants had not the capacity and attention "of Monſieur de Lamoignon de Baville. Had what the king directed "been as well executed in regard to every province, as it was by this "magiſtrate in the account of Languedoc, the collection would have "been one of the moſt valuable monuments of the age. Some of them "are well done; but the plan was irregular and imperfect, becauſe all "the intendants were not reſtrained to one and the ſame. It were to "be wiſhed, that each of them had given, in columns, the number of "inhabitants in each election; the nobles, the citizens, the labourers, "the artiſans, the mechanics, the cattle of every kind; the good, the "indifferent, and the bad lands; all the clergy, regular and ſecular; "their revenues, thoſe of the towns, and thoſe of the communities.

"All theſe heads, in moſt of their accounts, are confuſed and im- "perfect; and it is frequently neceſſary to ſearch with great care and "pains to find what is wanted. The deſign was excellent, and would "have been of the greateſt uſe, had it been executed with judgment "and uniformity."

been

been attainable with more extenſive powers. The candid Reader cannot expect in theſe Reports more than a certain portion of uſeful information, ſo arranged as to render them a baſis for further and more detailed enquiries. The attention of the intelligent Cultivators of the kingdom, however, will doubtleſs be excited, and the minds of men in general gradually brought to conſider favourably of an undertaking, which will enable all to contribute to the national ſtores of knowledge, upon topicks ſo truly intereſting as thoſe which concern the Agricultural intereſts of their country; intereſts, which on juſt principles never can be improved, until the preſent ſtate of the kingdom be fully known, and the means of its future improvement aſcertained with minuteneſs and accuracy.

PRELIMINARY OBSERVATIONS

TO THE

SOMERSETSHIRE RE-PRINTED REPORT.

THE following Remarks on the preſent ſtate of Agriculture in the county of Somerſet having been made without an actual ſurvey, thoſe readers who are converſant with the ſubject will be able, no doubt, to point out many *defects*, *errors*, and *omiſſions*.

The Writer, however, preſumes, that though he may not have ſpecifically and expreſsly touched on all the practices and improvements of the beſt farmers, yet that no kind or claſs of theſe matters has been abſolutely overlooked.

He does not profeſs to have given a compleat detail of the various branches of rural management, but to have diſcuſſed the moſt *important* articles belonging thereto; and he has done his utmoſt to treat the ſubject in ſuch a manner, and to expreſs his meaning in ſuch a language, as might be beſt adapted to the underſtanding and comprehenſion of common farmers.

Should the ſubject of *incloſing*, *&c. the Waſte Lands*, be thought by ſome to occupy too much room, the writer intreats them to weigh in their own minds, whether any thing, ſo nearly related to publick as well as individual good, can be too diffuſely handled, or too ſtrongly recommended.

To

To the following Gentlemen the writer is indebted for valuable information, and he begs leave to expreſs his warmeſt acknowledgements for the ſame:

Mr. PERKINS, of Oakhill near Shepton-Mallet.
Mr. ANDERDON, of Henlade near Taunton.
Mr. WHITMARSH, of Batts near ditto.
Mr. ABRAHAM, of White-Lackington.
Mr. MATTHEWS, of Bath, Secretary to the Agricultural Society.
Mr. PAGET, of Cranmoor.
Mr. CROCKER, of Frome.
Mr. LOCK, of Brent.
Mr. WHITE, of Sand near Wells.
Mr. PHIPPEN, of Mere near ditto.
Mr. KINGDON, of Milverton near Taunton.
Mr. DAVIS, of Longleat, Wilts.
Mr. PALFREMAN, of North Devon.
Rev. UNWIN CLARKE, of Monkſilver.

Others who promiſed their aſſiſtance, and who, from practical knowledge, were competent to the taſk, withheld their communications, from an *ill-founded* apprehenſion, that the eſtabliſhment of a Board of Agriculture was preparatory to additional taxation under ſome form or other.

This the writer has reaſon to mention with regret.

AGRICULTURAL SURVEY

OF

SOMERSETSHIRE.

CHAPTER I.

GEOGRAPHICAL STATE AND CIRCUMSTANCES.

SECT. I.—*Situation and Extent.*

SOMERSETSHIRE is a maritime county, in the South-weſt part of England, having the Briſtol Channel on the Weſt—Glouceſterſhire, and the city and county of Briſtol, on the North—Wiltſhire on the Eaſt—and Devonſhire on the South and South-Weſt.

Its form is oblong, being in length from North-eaſt to South-weſt 80 miles—in breadth from Eaſt to Weſt about 36 miles—and in circumference about 200 miles.

The reporter cannot with abſolute preciſion ſtate the total amount of acres, or the number of inhabitants, in this county; but he conceives the former to be about one million of acres, and the latter about three hundred thouſand. The average value per acre of the incloſed and cultivated land is not leſs now than *twenty-five* ſhillings per annum; and at the Revolution the total annual value was eſtimated at 375,000l.

375,000l. The different appropriations of this ſurface of land may be arranged in the following way:

	Acres.
Towns and villages	3000
Publick and private roads	15,000
Rivers, lakes, ponds, &c.	2,500
Woods and plantations	20,000
Meadow and paſture land incloſed	584,500
Marſh and fen-land unincloſed	30,000
Arable and convertible land incloſed	260,000
Common fields	20,000
Uncultivated waſtes	65,000
	*1,000,000

The ſea-coaſt is very irregular, in ſome places projecting into lofty and rocky promontories, and in others receding into fine bays, with flat and level ſhores. From Stert point northward, the coaſt is flat, and compoſed of vaſt ſand-banks repelling the inundation of the ſea, which, in ancient times, waſhed over theſe ſhoals, and flowed up into the country, covering with its waters that extenſive territory now called *Brent-Marſh*. The ſea, after its general retirement, paid frequent viſits to theſe parts; and it was found neceſſary, to the ſecurity of the country, to eſtabliſh a

* Since this account was taken, ſundry acts of parliament have been paſſed, and are now pending, for the incloſing, draining, and dividing of more than 18,000 acres of marſh and fen land, and 20,000 acres of common fields and uncultivated waſtes. Fifteen bills of incloſure have been brought into parliament this ſeſſion (1797) for this county only, whilſt, in the adjoining county of Devon, not a ſingle application has been made in this century. This is the more extraordinary, as there are immenſe tracts lying waſte in the laſt-mentioned county.

Commiſſion

Commiſſion of Sewers, the members of which ſhould examine and inſpect the ſea banks, ditches, gutters, and ſewers, connected with the ſea, and order the requiſite cleanſings and reparations. The firſt commiſſion of this kind upon record, was in 1304; and the like offices are extended to this day.

SECT. 2.—*Diviſion.*

Somerſetſhire, in reſpect to its juriſdiction, is divided into two parts, *eaſtern* and *weſtern*. The firſt containing 19 hundreds, the latter 21 hundreds. It has beſides 7 liberties, 2 cities, 7 boroughs, 29 market-towns, 1 biſhoprick, 3 archdeaconries, 13 deaneries, and 482 pariſhes.†

SECT. 3.—*Climate.*

In ſuch an extent of ground, it may naturally be ſuppoſed, that the climate is various. Near the ſea-coaſt winter is ſcarcely felt; and from Minehead and Dulverton on the weſt, to Milborne-Port and Wincanton on the eaſt, the climate (Quantock, Branden, and Dunkry hills excepted) is mild and temperate. As you approach the northern diſtrict, and aſcend Poulden hill, it changes and becomes more cold and boiſterous; and when you proceed farther northward, and gain the ſummit of Mendip hills, you feel yourſelf, comparatively, in Lapland. The perpendicular altitude of Mendip hills, compared with the town of Taunton, is ſuppoſed to be at leaſt 1100 feet.

Seed time and harveſt greatly vary in different parts of the county: the mountainous parts being nearly a month later than the vales; for which reaſon, it is found right, on expoſed and elevated ſituations, ſuch as Mendip, Quantock,

† Collinſon and Rack's Hiſtory of Somerſetſhire.

and

and Brandon hills, to ſow a fortnight earlier in the autumn, and a fortnight later in the ſpring, than is generally recommended in books of huſbandry or gardening.

SECT. 4.—*Soil and Surface.*

For fertility of ſoil, and general produce, this county ſtands eminently high in reputation. The plains are remarkable for their luxuriant herbage, which furniſhes not only a ſufficiency for its own conſumption, but alſo a conſiderable ſurplus for other markets: London, Briſtol, Saliſbury, and other parts of the kingdom, are annually ſupplied with fat *oxen*, *ſheep*, and *hogs*, together with *cyder*, *cheeſe*, *butter*, and many other articles, in great abundance. Nor are the hills by any means deficient in their arable productions; yet it muſt be admitted, that its vicinity to the Briſtol Channel, which fills the air with watery vapours unfavourable to the ripening of corn, particularly in the weſtern diſtricts, induces a preference in favour of *grazing* and *dairy* huſbandry: and in conſequence thereof, vaſt quantities of grain are annually purchaſed from the adjacent counties of Wilts and Dorſet, to the amount of at leaſt one hundred thouſand quarters—by which, the county would be drained of its money, were it not for the coal, cattle, &c. which are ſent in return.

MOUNTAINS.

The ſurface of the inland parts is varied by lofty hills, rich level plains, and bold aſpiring woods. The moſt noted hills are, *Quantock*, *Brandon* and *Dunkry*, *Mendip*, *Poulden*, *Broadfield* and *Leigh-down*, *Lanſdown*, *White-down*, and *Black-down*.

The ſoil of theſe mountains may be thus ſtated; *Quantock*, &c. (ſituated between the town of Taunton and the ſea) a thin

a thin variable ſoil, covering a looſe ſhelly rock, interſperſed with occaſional lime-ſtone. *Poulden-hill*, (between Bridgwater and Glaſtonbury) a ſtrong ſurface, covering a bed of clay or marl. *Mendip-hills*, (between the city of Wells and Briſtol.) *Broadfield* and *Leigh-down*, (near Briſtol) a gravelly loam on a lime-ſtone rock. *Lanſdown*, (near Bath) a free-ſtone grit. *White-down*, (near Chard) variable. *Black-down*, (on the confines of Devon) a thin ſurface of black earth on a bed of ſand or gravel. Almoſt every ſpecies of ſoil (chalk excepted, of which there is only a ſmall portion in the eaſtern diviſion) may be found in different parts of the county, and of a quality highly fertile and productive.

FORESTS.

Its antient foreſts are, *Selwood*, near Frome; *Mendip*, between Frome and the Briſtol Channel; *Exmoor*, between the port of Watchet and the north-weſt part of Devon; *Neroche*, near Ilminſter; and *North-Petherton*,* near Bridgwater.

MOORS.

The principal Moors are,
King-Sedgmoor, near Bridgwater.
Eaſt-Sedgmoor, between Wells and Glaſtonbury.
Weſt-Sedgmoor, between Taunton and Langport.
North-moor and Stanmoor, near the iſle of Athelney.
Common-moor, near Langport.
Weſt-moor, Curry and Hay-moor, near North-Curry.
Kings-moor, between Ilcheſter and Somerton.
Ilemoor, on the river Ivel.

* The pariſh of North-Petherton, at the preſent æra, conſiſts of as good arable and paſture land as any in the county; and may, I believe, be eſtimated at the average annual value of 40s. per acre. J. B.

Brent-

Brent-marſh, on the river Brue and Ax.

Weſton-moor, near Uphill.

Banwell and Smeath moors, near Churchill.

Kenn-moor, near Yatton.

Nailſea-moor, north of Kenn.

Clapton-moor, between Clapton and Wirton.

Of theſe many have been incloſed, drained, and improved, in the courſe of the laſt twenty years, as will be noticed hereafter.

SECT. 5.—*Minerals, &c.*

This county produces *lead*, *copper*, *iron*, *lapis calaminaris*, *manganeſe*, *coal*, *lime-ſtone*, *paving-ſtone*, *tiling-ſtone*, *free-ſtone*, *fullers'-earth*, *marl*, and *ochre*.

SECT. 6.—*Water.*

The principal rivers are, the Avon, Ax, Brue, Parret, Yow, Cale, Chew, Tone, Frome, Ivel, Ex, and Barl.

Of theſe, four only are navigable, viz. the Avon, from Bath to Briſtol, 16 miles; the Brue, from Briſtol Channel to Highbridge, 2 miles; the Parret, from Stert-Point to Langport, about 20 miles; and the Tone, from Taunton to Boroughbridge, 8 miles.

For the ſake of perſpicuity I ſhall divide the county into three diſtricts:—the firſt comprehending the tract of land included between the ports of Uphill and Kingroad on the weſt, and the towns of Bath and Frome on the eaſt. This I ſhall call the *north-eaſt* diſtrict.

The next I ſhall call the *middle* diviſion; and is that portion of land which is bounded by the Mendip hills on the north, Bridgwater-bay on the weſt, and the town of Chard on the ſouth.

The *ſouth-weſt* diviſion will occupy the remainder.

NORTH-

NORTH-EAST DISTRICT.

SECT. I. *Climate, Soil, and Surface.*

The ſurface of this diſtrict being very irregular, and intermixed with lofty hills and rich fertile plains, the climate is conſequently exceedingly varied. On the weſtern ſide, including the hundreds of Winter-Stoke and Portbury, the ſoil is, for the moſt part, a deep and rich mixture of clay and ſand; being originally a depoſit by the ſea, which, in antient times, flowed up a conſiderable way into that part of the country. Theſe Moor-lands, as they are called, are at the preſent time ſubject to frequent inundation; and ſometimes, in rainy ſeaſons, are covered with water for four or five ſucceſſive months. The luxuriant herbage produced by theſe lands, when cleared from ſtagnant water, is ſuch as to induce, in the mind of a man fond of national improvement, an ardent wiſh to ſee them completely drained.

This, I think, might be effected in the following way: Let a ſluice or dam be built at the outlet of the river Yeo or Yow, the apron of which ſhould be placed near low-water mark. It is not neceſſary to deſcribe theſe ſluices, or outlets, as they are common to moſt counties bordering on the ſea. Suffice it to ſay, that theſe buildings are furniſhed with folding doors, which ſhut at the influx of the tide, and open on its retreat. From a ſluice thus erected, let the bed of the river be lowered to an inclined plane of one foot in a mile. This is ſufficient to produce a current, and it will prevent any great depoſit of ſediment. Let the bottom be contracted in its breadth, ſo that the water in time of floods may run with ſufficient rapidity to cleanſe it of mud. In regard to the dimenſions and expence of ſuch a main drain, the reader ſhall be informed when we come to treat of Sedgmoor.

In the parishes of Congresbury, Yatton, Banwell, Winscombe, Churchill, and Puxton, there are not less than three thousand acres subject to frequent inundation. All these lands discharge the greatest part of their waters into the river Yeo, and are under the inspection of the Commissioners of Water-Sewers; but the powers vested in these commissioners by Parliament are not sufficient to enable them to divert the course of the river, or to effect a radical cure.

The tide flows nearly seven miles up the river Yeo; and at six miles from the mouth of the river the spring-tides flow five feet above the level of the adjacent lands.

This would be effectually prevented by the dam before mentioned; and by cutting proper lateral drains, the whole district might be advanced in value 10s. or 15s. per acre: and all this might be done at an expence which two years profit would reimburse. Nothing is necessary but effectual draining to make it as good land as any in the county. It requires no dung, or any extraneous manure, but may be kept in good heart by the contents of the ditches.

To the northward of this district lie the parishes of Kenn, Kingston-Seymour, Cleveden, Nailsea, Chelvey, and Claverham, possessing near four thousand acres, alike subject to inundation.

These parishes are secured from the sea by a wall built with stone and lime, and elevated ten feet above the level of the land within. High tides sometimes overflow this wall, and when a strong westerly wind prevails, at the equinoxes, the wall is frequently broken down by the impetuosity of the waves, and large portions of the land are covered.

Should this happen at the autumnal equinox, little injury is done; but if at the vernal, it kills the best grass, and the crop of the ensuing summer is worth but little. These lands discharge their waters by two rivers, called the Little Yeos.

At

At the mouth of theſe rivers are ſluices, ſuch as before deſcribed, which prevent inundation *from the ſea*; but being not made deep enough at their outlet, and the rivers, by which the waters are conveyed, not being properly bottomed, the country is ſubject to frequent *land-floods*. This level is ſuſceptible of the ſame improvement, by a complete drainage, as the former. At the ſouth-weſt of this diviſion lie the pariſhes of Churchill, Hutton, Banwell, Locking, Weſton-ſuper-Mare, and Uphill. Theſe lands are for the moſt part occupied by dairy or grazing farmers, and are ſubject to frequent overflowings of the river, which runs through a dam or ſluice at Uphill. It is preſumed, that if the bed of the river at Uphill, and the ſluice through which the water is diſcharged, were deepened three feet, the evil would in a great degree be removed.

Proceeding northward from hence you aſcend Leigh-down. This is a tract of elevated land, extending from Cleveden to the Hot-Wells, near Briſtol. It is principally fed with ſheep, and conſiſts of nearly three thouſand acres. A large portion of this down will not admit of cultivation, the lime-ſtone rock being within two or three inches of the ſurface. It is probable that this land will pay more as paſture than any other way. But the chief inconvenience ariſes from the unlimited right of ſtocking, by which it is burthened with double the number it ought to have; the breed of neat cattle is greatly injured; and, in reſpect to ſheep, the quantity of wool leſſened. To illuſtrate this obſervation, reſpecting over-ſtocking, I ſhall ſtate a caſe in point. A farmer of this diſtrict, ſome years ſince, put twenty-five head of ſteers and heifers into a piece of commonable land: the ſpring being unfavourable to the purchaſe of cattle, and a conſiderable fatality having prevailed the preceding winter, the common was *moderately* ſtocked; in conſequence of

which a profit of two pounds per head was made between the months of April and November. Encouraged by this ſucceſs, and flattering himſelf with the proſpect of ſimilar profit, he purchaſed the next year one hundred head; but others following his example, he, to his great mortification, found that, inſtead of profit, he ſuffered a loſs of nearly one hundred pounds.

From theſe premiſes, may it not be fairly inferred, that the *incloſing* and *dividing* of commons, even in caſes where the plough cannot prudently be introduced, are beneficial both to the individual and the public; as the owner can then apportion his ſtock to the quantity and quality of his land, and can have them at all times under his eye? But of this ſubject more by and by.

SECT. 5. *Minerals, &c.*

The Mendip hills are famous for their mines, particularly of lead and lapis calaminaris. The former are nearly exhauſted, or at leaſt the deep working is ſo incumbered with water, that little can be done, and in all probability millions in value may remain concealed in the bowels of this mountain, 'till ſpirit enough be found in the country to perforate it by cutting a level, or audit, through its baſe, namely, from Compton-Martin to Wookey-Hole.*

* A plan ſimilar to this has been talked of in a general way for ſeveral years paſt, but no regular ſyſtem has been formed. It might eventually prove highly productive to the adventurers; and, whether taken in a provincial or national view, be of great utility. The riſk is certainly ſmall, the advantage poſſibly great. But there are many concomitant circumſtances which call for mature deliberation and able digeſtion; ſuch as the conſent of the proprietors of land, the authority of Parliament, compenſation to the owners of pitches already made agreeable to the laws of the foreſt, the incorporation of a company, the appointment of a treaſurer, clerk, manager, committee, &c. It will alſo, moſt probably, be expected by the proprietors of land, that more

The diſtance is about five miles, and the depth from the ſurface about one hundred and fifty yards; ſuch a tunnel would not only convey off all water, but the driving it, or the ſinking of the ſhaft or perpendicular pits, might lead to a diſcovery of veins of lead hitherto unexplored, and perhaps as valuable as that now at Weſt-Chewton, which, tradition ſays, yielded 100,000*l.* within the ſpace of an acre. What the expence of ſuch an adventure might be, I cannot exactly aſcertain; but, for argument ſake, let us ſuppoſe it to be 100,000*l.*—A thouſand ſubſcribers, at 100*l.* each, would ſuffice; and as no great number of men can, for want of room, be employed at the ſame time, I would propoſe that the principal money be veſted in government ſecurities, and the *intereſt* only expended; this would keep in conſtant pay more than one hundred workmen, and in all probability, before 10,000*l.* were expended, diſcoveries would be made highly beneficial to the adventurers, and to the publick; and, even under the worſt ſuppoſition, the only loſs would be that of the intereſt of 100*l.* to each individual.

In times paſt many thouſands a year have been annually paid to the ſee of Wells for the lord's ſhare (that is, one tenth) of the lead dug on the foreſt within the pariſh of Wells only; and is it not more than probable, that lead, like coal, may be moſt valuable in the deep? On Broadfield-down there are alſo veins of lead; and in the pariſhes of Rowberrow, Shipham, and Winſcomb, there are valuable mines of lapis calaminaris. This mineral is ſometimes found within a

more than one level be driven, that all might have an equal chance of benefit. Such expectation appears reaſonable, and from the ſmall number of workmen that can poſſibly be employed on a level at the ſame time, the intereſt of the capital will be fully ſufficient for carrying on, not only the principal one, but alſo two or more others, from different points, to thoſe parts where, from the antient working, there is good cauſe for expecting to meet with ore. R. PAGET.

yard of the ſurface, and ſeldom worked deeper than thirty fathoms. Between four and five hundred miners are conſtantly employed in this buſineſs, and the average price is about five pounds per ton. In the pariſhes of Compton-Martin and Eaſt-Harptry are alſo many mines of a ſimilar nature, and a conſiderable number of men are conſtantly employed therein.*

The general method of diſcovering the ſituation and direction of theſe ſeams of ore (which lie at various depths, from five to twenty fathoms, in a chaſm between two benches of ſolid rock) is, by the help of the *divining-rod*, vulgarly called *joſing*; and a variety of ſtrong teſtimonies are adduced in ſupport of this doctrine. Moſt rational people, however, give but little credit to it, and conſider the whole as a *trick*. Should the fact be allowed, it is difficult to account for it; and the influence of the mines on the haſel-rod ſeems to partake ſo much of the marvellous, as almoſt entirely to exclude the operation of known and natural agents. So confident, however, are the common miners of its efficacy, that they ſcarce ever ſink a ſhaft but by its direction; and thoſe who are dexterous in the uſe of it, will mark on the ſurface the courſe and breadth of the vein; and after that, with the

* There are marks and indications of calamine from theſe pariſhes in the weſt, through the whole tract of Mendip to Mells at the eaſtern extremity. At Merchant's-hill, in the pariſh of Binegar, ſeveral tons were raiſed ſome years ago. It was of very good quality, and more would have been landed, had not the influx of the water put a ſtop to the works. At the ſame time a large quantity was raiſed at Mells, remarkably pure, free from heterogeneous mixture, and of excellent quality. It did not there deſcend, in regular courſes, between the lime-ſtone rocks, but was found in large maſſes or hulks, lying horizontally, at about four or five feet from the ſurface, on a thin ſcale of free-ſtone which covered the rock; and it is highly probable that much more remains to be diſcovered. R. P.

aſſiſtance

aſſiſtance of the rod, will follow the ſame courſe twenty times following *blindfolded.*

At the requeſt of many gentlemen I have annexed

The LAWS and ORDERS of the MENDIP MINERS, commonly called LORD CHOKE'S LAWS.

Be it known, that this is a true copy of the inrolled, in the king's exchequer, in the time of king Edward the IVth, of a debate that was in the county of Somerſet, between the Lord Benfield, and the Tenants of Chewton, and the Prior of Green-Oare: the ſaid prior complaining unto the king of great injuries and wrongs that he had upon Mendip; being the king's foreſt, the ſaid king Edward commanded the lord Chock, the lord chief juſtice of England, to go down into the county of Somerſet, to Mendipp, and ſit in concord and peace in the ſaid county concerning Mendipp, upon pain of high diſpleaſure. The ſaid lord Chock ſate upon Mendipp on a place of my lords of Bath, called the *Forge*; where (as he commanded all the commoners to appear, and eſpecially the four lords royals of Mendipp; that is to ſay, the biſhop of Bath, my lord of Glaſton, my lord Benfield, the earl of Chewton, and my lord of Richmond, with all the appearance, to the number of ten thouſand people) a proclamation was made, to enquire of all the company how they would be ordered; then they, with one conſent, made anſwer, that they would be ordered and tryed by the four lords of the royalties; and then the four lords royal were agreed, that the comminers of Mendip ſhould turn out their cattle at their out-lets, as much the ſummer as they be able to winter; without hounding or pounding, upon whoſe grounds ſoever they went to take their courſe and recourſe. To which the ſaid four lords royal did put their ſeals; and were alſo agreed, that whoſoever ſhould break the ſaid bonds

ſhould

ſhould forfeit to the king a thouſand marks, and all the comminers their bodys and goods to be at the king's pleaſure or command that doth either hound or pound.

The old ancient occupation of miners in and upon Mendipp, being the king's foreſt of Mendipp, within the county of Somerſet, being one of the four ſtaples of England, which have been exerciſed, uſed, and continued, through the ſaid foreſt of Mendipp, from the time whereof no man living hath not memory, as hereafter doth particularly enſue the order.

1. *Firſt*, That if any man, whatſoever he be, that doth intend to venture his life to be a workman in the ſaid occupation, he muſt firſt of all crave licence of the lord of the ſoyle where he doth purpoſe to work, and in his abſence, of his officers, as the lead-reave or bailiffe, and the lord, neither his officers can deny him.

2. *Item.* That after the firſt licence had the workman ſhall never need to aſk leave again, but to be at his free will to pitch within the foreſt, and to brake the ground where and in what place it ſhall pleaſe him, to his behalf and profit, uſing himſelf truſtily and truly.

3. *Item.* If any man that doth begin to pitch or groof ſhall heave his hackes through two ways after the rake. Note, that he that doth throw the hacke muſt ſtand to the girdle or waiſt in the ſame groof, and then no man ſhall or may work within his hackes throwe, provided always that no man ſhall or can keep but his wet and dry groof and his mark.

4. *Item.* That when a workman have landed his oar, he may carry the ſame to cleanſing or blowing to what minery it ſhall pleaſe him, for the ſpeedy making out of the ſame, ſo that he doth truly pay the lord of the ſoyle where it was landed his due, which is the tenth part thereof.

5. *Item.*

5. *Item.* That if any lord or officer hath once given licence to any man to build, or ſet up any hearth or waſh-ing-houſe, to waſh, cleanſe, or blow oar, he that once hath leave ſhall keep it for ever, or give it to whom he will, ſo that he doth juſtly pay his lott lead, which is the tenth pound, which ſhall be blown at the hearth or hearths; and alſo that he doth keep it tennantable, as the cuſtom doth require.

6. *Item.* That if any man of that occupation doth pick or ſteal any lead or oare to the value of thirteen-pence half-penny, the lord, or his officer, may arreſt all his lead-works, houſe, and hearth, with all his groofs and works, and keep them as ſafely to his own uſe; and ſhall take the perſon that hath ſo offended, and bring him where his houſe is, or his work, and all his tools or inſtruments to the occupation be-longs as he uſeth, and put him into the ſaid houſe, and ſet fire on all together about him, and baniſh him from that occupation before the miners for ever.

7. *Item.* If that perſon doth pick or ſteal there any more, he ſhall be tryed by the law, for this law and cuſtom hath no more to do with him.

8. *Item.* That every lord of the ſoyle ought to keep two miner-courts by the year, and to ſwear twelve men of the ſame occupation for the redreſs of miſdemeanors touching the mineries.

9. *Item.* That the lord or lords may make and grant manner of arreſts, viz. Firſt, for ſtrife between man and man, for their works under the ground or earth. Secondly, for his own dutys for lead or oare, whereſoever he findeth it upon the ſame foreſt.

10. *Item.* That if any man, by means of misfortune, take his death, as by falling of the earth upon him, by draw-ing or ſtifeling, or otherwiſe, as in time paſt many have been,

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the workmen of the ſame occupation are bound to fetch him out of the earth, and to bring him to chriſtian burial at their own coſts and charges, although he be forty fathome under the earth, as heretofore hath been done, and the coroner, or any officer at large, ſhall not have to do with him in any reſpect.

COAL.

This diſtrict abounds with coal, and with reſpect to this article is reducible to the ſeparate diviſions of Northern and Southern. The former, including the pariſhes of High-Littleton, Timſbury, Paulton, (with Clutton and Sutton adjoining to the weſt, and Camerton and Dunkerton to the eaſt of the diſtrict) Radſtock, and the northern part of Midſummer-Norton. The latter, the ſouthern part of Midſummer-Norton, Stratton on the Foſs, (Halcombe and Aſhwick adjoining the diſtrict) Kilmerſdon, Babington, and Mells.

Theſe, meaning the *latter*, are what were heretofore known by the name of Mendip collieries, and probably they were once within the verge of that extenſive foreſt, though now in the midſt of old incloſures. They being ſtill frequently deſcribed in ordinary books of topography by the ſame name, (now obſolete in the neighbourhood) this remark was thought neceſſary for the purpoſe of identification.

In the Northern collieries the ſtrata of coal form an inclination of the *plane* of about nine inches in the yard: theſe are in number nineteen. In thickneſs variable, from ten inches to upwards of three feet. If leſs than fifteen inches, they are ſeldom worked. Coal is now working generally from ſeventy to eighty fathoms in depth: in a few places deeper; and by a late introduction of machinery to raiſe it by

by the ſteam-engine, a much greater depth of working will be obtained.*

Profits of working in the aggregate, by no means equal to the extent and riſque of the adventure; to a few works conſiderable; to the majority very moderate.

The coal is of prime quality; pure and durable in burning; firm, large, and of a ſtrong grain; which enſures its conveyance to almoſt any diſtance, without injury to its appearance or quality, which cannot be exceeded in any part of the kingdom. Bath is the principal market of conſumption; to which may be added, the weſtern parts of Wiltſhire, and the next adjacent parts of Somerſetſhire. The quantity now raiſed is from fifteen hundred to two thouſand tons weekly. A much greater can be ſupplied, ſhould an increaſed demand require it. Boys and men, to the number of fifteen hundred, are employed in working it, with wages ſufficiently adequate to procure them a comfortable ſubſiſtence.

An application is intended to be made to parliament at the enſuing ſeſſion, for leave to cut two branches of a canal for the accommodation of the collieries of this northern diſtrict, to communicate with the rivers Avon and Kennett.† Should the bill paſs, a conſiderable extenſion of ſale may be reaſonably inferred. The permanence of the works is

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* As it may be a matter of conſequence to all ſuch coal-works whoſe ſituation in regard to water will admit of it, it ought to be noticed, that at Welton, a work in the northern part of Midſummer-Norton, the coal has lately been drawn up by a water-wheel on a new conſtruction; the machinery appendant to which is ſo contrived as to anſwer the purpoſe in the moſt perfect and cheap manner; the uſe of horſes, as in the old way, being entirely ſuperſeded; and the conſumption of fuel, as in the new way by the ſteam-engine, altogether ſaved. R. P.

† This act has been obtained; and the canal is now (Jan. 1797) nearly half finiſhed.

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amply ſecured by various contrivances, in preventing the admiſſion of the ſprings into the deep working.

The number of works twenty-ſix. The owners of the freehold from whence the coal is raiſed generally receive an eighth of the groſs receipt of ſale; but, to encourage the proprietors to greater depths of working, have occaſionally complied with a proportionable reduction of this quota, on account of the increaſed expences in working; whereby they have derived a profit from coal, which otherwiſe would have been irrecoverably loſt. Some, through ignorance and ſtubbornneſs, have withheld this conceſſion, and thereby incurred the loſs.

Average price of coal five-pence per buſhel at the pit, (nine gallons meaſure.)

The Southern diſtrict is on a more limited ſcale of working. The ſtrata of coal form an inclination of the plane from eighteen to thirty inches in the yard; in ſome the plane is annihilated, and they deſcend in a perpendicular direction. There are in number twenty-five; in thickneſs from ſix inches to ſeven feet; ſeldom worked under eighteen inches; in depth from thirty to ſixty fathoms at the preſent working. By the ſteam-engines, which are now erecting in this diſtrict, a much greater depth will be attained. Profits in the aggregate of working very trifling, if any, owing to the conſumption of timber, and the expence of drawing water. The coal of various quality; ſome nearly equal to that of the northern diſtrict; but the greateſt part leſs firm, of ſhorter grain, and leſs calculated for diſtant carriage; but free to burn, wholly diveſted of ſulphureous ſtench, and durable. The ſmall coal excellent for the forge, and when reduced to a cinder, called *coke*, by a proceſs of very ancient uſage, it furniſhes a fuel for drying malt, which, from its purity and total exemption from ſmoke, cannot be excelled,

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if equalled. The ſouth-weſtern parts of Wiltſhire, the northern of Dorſet, and the eaſt and ſouthern parts of Somerſet, are the markets for conſumption.

The quantity now raiſed is from eight hundred to a thouſand tons weekly, which, in the courſe of a few years, might be extended to two thouſand tons, if ſale could be found. Boys and men employed at preſent amount to from five to ſix hundred. An improved method of working has been lately adopted in ſome parts of this diſtrict, by which the ſprings are prevented from inundating the deep working; whereby its extent and duration will be conſiderably promoted.

A canal to the works in this diſtrict, which might be cut at an eaſy expence, has been for ſome time in contemplation;* and which not only would benefit the proprietors of the works, by extending the conſumption, but alſo reduce the price to the more diſtant conſumers more than half.

The average price of coal in this diſtrict is three-pence three-farthings per buſhel.

Should the works in the Northern diſtrict be ſtopped, the probable increaſe of the poor-rates would be 2000l. per annum. In the Southern (much more burthened with poor) to ſeven or eight ſhillings in the pound.

At Clapton alſo, a village lying to the north-weſt of Leigh-Down, there is a coal-work which poſſeſſes the advantage of a land-level of forty-four fathoms. At this pit are landed about 240 buſhels daily. The beſt coal is ſold at three-pence halfpenny per buſhel, and the ſmall is ſhipped at Portiſhead-point for Wales, where it is uſed for burning lime.

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* This is now (Jan. 1797) in execution, and the tonnage, &c. of coal to Frome (nine miles) will not exceed 2s. per ton.

South-

South-eaſt of Leigh-Down is a vale of rich graſs land, extending from Bedminſter at the north-eaſt, to Brockley and Nailſea at the ſouth-weſt.

Under this level are ſuppoſed to be inexhauſtible veins of coal. At preſent they land 2500 buſhels a day. The beſt coal is ſold at three-pence halfpenny, the middle ſort at three-pence, and the ſmall at two-pence, per buſhel. One of the works is under contract to ſerve the glaſs-houſes, ſome time ſince erected in the pariſh of Nailſea, at one penny farthing per buſhel.

Theſe glaſs-houſes conſume about 2000 buſhels weekly. The deepeſt work is forty-two fathoms. The principal vein is five feet thick; ſometimes more. The coal takes a ſouth *pitch*, or inclination, never exceeding two feet in a fathom. Little timber is uſed; but they are much incommoded with water; for the rock which lies above the coal ſo abounds with fiſſures, that it is difficult to prevent the *land water* from pervading the bottom of the works.

When the top veins are exhauſted, and the proprietors compelled to go deeper, it is a matter of doubt whether any power of a ſteam-engine may be competent to the taſk of keeping them dry.

Many people are under alarming apprehenſions leſt the coal-mines may be exhauſted by the extra demand produced by the extenſion of ſale eſtabliſhed by the canals;—but ſuch diſquieting ideas will vaniſh, when they are told that more than treble the preſent quantity could be raiſed from the pits already in uſe, did the demand require it; and the increaſed quantity might be ſupplied for ſeveral hundred years.

CHAPTER II.

STATE OF PROPERTY.

Eſtates and Tenures.

THERE are in this diſtrict many large proprietors from 2000l. to 6000l. per annum; but ſtill the greateſt part is poſſeſſed by the middle claſs, holding from 50l. to 500l. per annum. Part is leaſed out on lives; part is in demeſne, and let out for ſhort terms; and no ſmall quantity is the fee of the occupiers, conſtituting a moſt reſpectable yeomanry.

To thoſe who are ſenſible of the importance of agriculture to ſociety, a contemplation of the cauſes which have principally contributed to its advancement in this county cannot but be highly intereſting. And foremoſt, we may ſafely rank, the *alienation of property*, whereby lands, heretofore neglected and comparatively barren, have been advanced from ſuch their unproductive ſtate to a condition highly fertile and productive. Next, the increaſed population and extenſion of manufactures; together with the enlargement of the city of Bath.

Certain lands now held by their ancient tenures, and conſequently but little improved, preſent a lively portraiture of the former diſgraceful ſtate of the county, when contraſted with its preſent ſtate of comparative perfection.

CHAPTER III.

BUILDINGS.

THERE are many ſplendid gentlemen's ſeats, ornamented with extenſive plantations, in this diſtrict; and the farm-houſes and cottages are for the moſt part commodious and comfortable—but on all the dairy farms, a ſhameful inattention prevails, in reſpect to out-houſes and ſheds for their ſtock to retire to in the winter months. Cattle are almoſt univerſally ſerved with their provender in the field; and many a dairy farmer, with twenty cows, ſcarcely makes, in the whole winter, a quantity of dung ſufficient to manure *one acre* of land. Corn being generally ſtacked, the barns are ſmall, and principally *thatched* with wheat-ſtraw unbroken by the flail, which gives to the roof a very neat appearance, and renders the building perfectly ſecure from rain. It has been of late too much the practice for pariſh-officers to proſtrate cottages, and to leſſen as much as poſſible the number of inhabitants in their reſpective pariſhes; this abſurd and narrow-minded ſyſtem has received vigour and extenſion from the prevailing cuſtom of making the tenant pay the poors levy. It is, however, a practice which cannot be too ſtrongly reprobated; and the ill effects of it have been ſo maſterly depicted by Mr. *Kent* and other authors, that I ſhall not fatigue the reader with a repetition of their arguments. On all the new incloſures (which for the moſt part are ſituated at a diſtance from the inhabited villages) the erection of cottages appears *indiſpenſible*, as without them, the waſte of time in going forward and backward to and from work amounts to nearly a quarter part of the day.

It might alſo be added, that many of the cottages now in uſe are on too ſmall a ſcale. Few of them have more than

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one room above ſtairs. This is not only uncomfortable, but inconſiſtent with that decency and modeſty, with the importance of which children cannot be too early or too ſtrongly impreſſed.

The rent of theſe cottages varies from thirty ſhillings to fifty ſhillings per year, including a ſmall portion of garden-ground.*

* It is but of little permanent utility to the cottagers to give them garden-ground, unleſs you ſupply them annually with a certain portion of manure. J. B.

CHAPTER IV.

MODE OF OCCUPATION.

SECT. I.—*Size of Farms. Character of Farmers.*

THE Farms in this diſtrict are not large, ſeldom exceeding 200l. per year, and accompanied with a ſmall proportion of arable. Some of the dairy farms are ſo ſmall, as not to exceed 60l. or 70l. per year; and many inſtances can be produced of ſuch little farmers breeding up a large family in a very reſpectable way. In ſuch inſtances, it is generally found that the wife undertakes the whole management of the cows, and the huſband goes to daily labour. There are few trades in which a ſmall capital can be employed to greater advantage than this. As to the general character of farmers, truth compels to ſay (and I mention it with regret) that there is a great want of juſtice, candour, and liberality, in their conduct towards their landlords, and in their general ſyſtem of management. If not cloſely watched, they will impoveriſh their eſtates by ſelling the little ſtraw they grow to the adjacent towns; and though dung of the beſt kind may be bought, both in Briſtol and Bath, for 3s. or 4s. a waggon load, they ſcarcely ever take any back to their farms.

They are alſo much bigotted to old cuſtoms; and I hope I am not uncharitably ſevere, if I add, that they are too juſtly chargeable with a diſregard of truth. This is the forerunner of all vice, and to the prevailing cuſtom of telling lies at fairs, may be attributed the looſe morality of farmers in this moſt eſſential part of human reſponſibility.

It muſt be acknowledged that there are many exceptions to this general obſervation.

SECT.

SECT. 2.

Rent is univerſally paid in money; and it is generally cuſtomary to receive the Michaelmas rent at Lady-day, and the Lady-day's rent at Michaelmas. No perſonal ſervice is exacted.

SECT. 3.—*Tithes.*

I muſt beg leave to wave a diſcuſſion of this difficult though important ſubject. Suffice it to ſay, that if they are a grievance, (which I believe few will diſpute) it is a grievance eſtabliſhed by the laws of the land, and no violent or harſh methods of relief can be juſtified. In reſpect to their influence on the agriculture of *this diſtrict*, I ſee but little to complain of: both the clergy and the lay-impropriator have been ſo moderate in their demands, and in general have agreed to ſo reaſonable a compoſition, that the progreſs of improvement has received but little check on this account.

There is one method by which I think tithes might be fairly and honourably got rid of, and that is by *purchaſe*. The unappropriated tithe-holder could have no juſt reaſon for complaint if he were paid a fair value for his property; and the clergy might *at this time*, from a fund eſtabliſhed under the direction and controul of the legiſlature, and guaranteed by government, enjoy ſuch an increaſe of annual income as would be a ſufficient compenſation for any ſuppoſed advance in the different articles of human ſupport, convenience, or comfort.

SECT. 4.—*Poor-Rates.*

In reſpect to the county of Somerſet, the poor's levy is a more alarming grievance than tithes.

Many pariſhes, which within twenty years paſt paid no more than 50l. per annum to the poor, now pay 200l. and unleſs ſome plan of prevention be adopted, the evil is not likely to abate. This increaſe of the poor's rate has been *general*, and may be attributed partly to an increaſed population, and partly to a growing diſſoluteneſs in the manners of the poor, which ever accompanies national improvement. Active exertions in this way cannot fail to produce a ſcarcity of labour; and to this, as naturally follows, an advance of wages; but the misfortune is, that ſuch an advance is not accompanied with a growing diſpoſition in the workman to maintain, in a more comfortable way, his wife and family, or to lay by againſt a time of need. No; if he can earn eight or nine ſhillings in *four* days of the week, the remaining *two* days are devoted to pleaſure, or luxury, and the wife and children are in a worſe ſituation than when more moderate wages compelled him to conſtant work.

I have known many inſtances, where the wages of a collier and his family, not exceeding five perſons, have been twenty-five ſhillings per week, and their improvidence has been ſuch, that one week's illneſs has brought them to the pariſh for aſſiſtance.

I can alſo look back to the time, when a commendable degree of pride operated on the minds of the lower claſs, and withheld them from applications to the pariſh for relief, unleſs in great diſtreſs.

This pride, I am ſorry to ſay, is totally loſt, and the boon is now adminiſtered by the pariſh-officer, with *caution* and *reluctance*; and received by the poor, with *diſſatisfaction* and *ingratitude*. From what I have ſaid, let it not be inferred, that I wiſh to depreſs the poor, or to debar them of that comfort, which their uſefulneſs in ſociety intitles them to enjoy. No ſight can be more pleaſing to me, than to ſee

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an induſtrious cottager, returning from his daily labour, with a chearful countenance, and viewing his wife and children with complacency and delight; and I would contribute to their happineſs as much as in me lies, by humbly recommending to our legiſlators a ſerious peruſal of a pamphlet, publiſhed ſome years ago, entitled, *Twenty minutes Advice on the Poor Laws.* By the plan there ſuggeſted, I verily think the ſituation of the induſtrious poor might be meliorated, and the idle and diſſolute be made to contribute towards their ſupport.* All thoſe who are converſant with the ſtate of the lower claſs of ſociety, muſt know that the period of life in which a workman moſt ſuffers, is when he has five or ſix ſmall children. Then it is that the ſupport of the whole family depends on the father's labour, and his utmoſt exertions is ſcarcely ſufficient to procure them bread; ſhould ſickneſs befall him, he muſt contract debts; and ſhould this repeatedly happen, before he has extricated himſelf, his ſpirits are broken, and the love of freedom and independence no longer exiſts. A degree of torpor and inactivity ſucceeds, from which he ſcarcely ever emerges. To the man in this ſituation, I would, if poſſible, adminiſter relief; and the beſt method I can ſuggeſt is, that of encouraging, by the authority of parliament, *Friendly Societies*, under the regulation of which, the *batchelor* might be made

* The practice of farming out the poor ſeems to require correction. It is no leſs diſgraceful to the feelings of humanity than repugnant to the pureſt policy. To preſerve virtue, its native dignity ſhould be countenanced in every order of ſociety, and particularly in that claſs whoſe induſtry ſupplies ſuccour, and whoſe content promotes peace throughout the nation. But how can this be effected by rendering them dependent for ſubſiſtence upon one, who is appointed their provider, only becauſe his terms for their ſupport are leſs burthenſome to the pariſh, than thoſe of his competitors for this office? G. F.

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to contribute to the ſupport of the *married*; this would in ſome degree check that diſpoſition to celibacy, which is but too apparent among the lower orders of mankind; and would add to the comfort of wedlock, and to the population of the realm.

A progreſſive, and too liberal increaſe of wages for daily labour, will leſſen the *quantum* furniſhed, and will only tend to increaſe the diſſolute manners of the poor; whereas, the plan ſuggeſted by the author of the before-mentioned tract would, *I humbly think*, be attended with the happieſt conſequences, both in an individual and a national ſenſe; and I hope the time is not far diſtant, when this inſtitution, or ſomething ſimilar thereunto, may commence, and the poor be extricated from their preſent dependance on the ſcanty bounty of a pariſh-officer; and entitled to claim a ſupport from a fund to which they have contributed, and to part of which they will have a legal and incontrovertible right.

The following are the leading features of Mr. PEW's plan for the maintenance of the poor, as contained in *Twenty Minutes Advice*, before referred to, by which it is ſuppoſed that two millions per annum may be ſaved to the landed intereſt, and the poor better maintained than they now are:

Clauſe 1ſt. That a proper officer be appointed for ſuch an extent of diſtrict as he may be ſuppoſed conveniently to ſuperintend, to take a liſt of the names and places of abode of all males above the age of eighteen, and of all females above the age of ſeventeen years, in the ſame manner as the liſt is made out for the milltia.

2*d.* That every ſuch male pay two-pence per week, and every ſuch female three-farthings or one penny per week, into the hands of the above officer, for the purpoſes hereafter to be ſpecified.

3*d.* The

3*d*. The above officer ſhall be empowered to furniſh employment for all ſuch as are willing to work, and who cannot find it for themſelves.

Whether this officer ſhould be choſen annually, in rotation, after the manner of an overſeer, or whether he ſhould be a permament officer, upon an adequate ſalary, will be a matter of future conſideration; but if the latter, he ſhould be paid by the community, and not out of the fund.

4*th*. All the poor being thus ſure of employment, the maſter or miſtreſs for whom they work ſhould be juſtified in retaining theſe ſums reſpectively out of their wages; and whether they do ſo or not, they ſhould (in default of the individual) be anſwerable to the officer for its payment: all maſters and miſtreſſes of families ſhould in like manner be anſwerable for their ſervants; and all keepers of lodging-houſes, &c. for their inmates.

5*th*. Theſe ſums ſhould be carried weekly to the general treaſurer of the *diviſion*, who ſhould give ſufficient ſecurity for the ſame.

6*th*. Out of this fund, every male, who is really incapable of labour, ſhould (by virtue of a certificate from the above officer) have *a right to demand* from the treaſurer five ſhillings per week for the firſt ſix months, ſhould his illneſs laſt ſo long; and four ſhillings per week after that period, until he again become capable of labour.

Every female ſhould have *a right to demand* two ſhillings and ſix-pence per week for the firſt ſix months, and afterwards two ſhillings per week until ſhe was again able to work; ſhe ſhould alſo be entitled to four weeks full pay at every lying-in.

Every male above the age of ſixty-five years, whether capable of labour or not, ſhould be entitled to four ſhillings per week during life. Every female ſhould, after the ſame age,

age, be entitled to receive two ſhillings per week during life.

7th. Any perſon having three children under nine years of age, ſhould be entitled to one ſhilling and ſix-pence per week, until the eldeſt ſhould have attained the age of nine years; and if he has more than three under that age, he ſhould be entitled to one ſhilling and ſix-pence per week for each above that number; and if any one or more of his children ſhould happen to be idiotick, inſane, or otherwiſe ſo far diſabled, either in body or mind, as to be utterly incapable of labour, each of them ſhould ſtill be conſidered as under the age of nine years, and paid for accordingly.

If a mother ſhould be left a widow, with three children under nine years of age, ſhe ſhould be entitled to receive five ſhillings; if with two children, three ſhillings; and if with one child, one ſhilling and ſix-pence per week; if with more than three, under that age, one ſhilling per week for each above that number: it being admitted that all her time is taken up by three, and allowance made for it, but that ſhe is capable of looking after and taking care of a greater number. The wives of men ſerving in the militia, and in the army or navy, ſhould, during the abſence of their huſbands, be conſidered and provided for in all reſpects as widows.

If a child ſhould be left an orphan, under nine years of age, two ſhillings per week ſhall be allowed from the fund for its maintenance; if more than one of the ſame family, one ſhilling and ſix-pence per week for each above that number. As there is probably no leſs friendſhip amongſt the lower than amongſt the higher orders of ſociety, it would generally happen that ſome friend or relation of the deceaſed would gladly take charge of the children, provided they could do ſo without eſſential loſs to themſelves: this regulation would effectually prevent that loſs; and to compenſate, in ſome degree, for the want of parental affection, ſix-

pence

pence per week more is allowed for the maintenance of an orphan, or a family of orphans, than for a child, or family of children, who ſtill retain their mother. If, however, any beings ſhould be ſo *uncommonly unfortunate* as not to be thus *adopted*, the officer above-mentioned ſhould be obliged to provide a receptacle for them, which he will always be able to do for the ſum or ſums above-mentioned.

8*th*. All children above nine years of age, if in health, ſhould, if they have no parents, or their parents are not able to provide for them, be put out after the manner of pariſh apprentices.

9*th*. All perſons neglecting or refuſing to pay their contribution, ſhould be committed to hard labour, in the houſe of correction, for the ſpace of ——.

10*th*. If the fund ſhould at any time fall ſhort of the neceſſary demands upon it, the deficiency ſhould be made up by a *pariſh-rate*, collected in the ſame manner as at preſent, but without any ſenſe of obligation on the part of the *multitude*, (for there would be *no poor*) who ſhould in all caſes receive their relief *in the nature of a demand*.

11*th*. If the fund (as moſt probably would happen) ſhould increaſe beyond the neceſſary demands upon it, the ſurplus ſhould on no account be diverted to any other purpoſe than the benefit of the ſubſcribers. But when the price of grain exceeded that which brings it eaſily within the reach of the multitude, (ſuppoſe 6s. or 6s. 6d. the Wincheſter buſhel) every perſon who had three children, or more, under nine years of age, ſhould have a right to *demand* ſuch a ſum as, in proportion to the number of his family, would reduce the various neceſſary articles of life (taking wheat as a ſtandard) to a moderate price; and, indeed, I think, in all caſes when the price of grain exceeds that proportion at which the *induſtrious labourer* can afford to come to market, *ſound policy*, as

as well as *common humanity*, requires that all large families ſhould be intitled to receive ſuch a ſum as above ſpecified, *although it ſhould be neceſſary to collect a rate for the purpoſe.*

SECT. 5.—*Leaſes.*

Many eſtates in this diſtrict are held by leaſes for three lives, with quit-rents and herriots, but the greateſt part is held for terms of years, viz. fourteen, ſeven, and three years; and ſome from year to year.

Some gentlemen, from the beſt of motives, have been long in the habit of letting their eſtates at the old rents, though the price of the articles of produce has, in the courſe of thirty years, advanced one third at leaſt.

How far ſuch acts of kindneſs may be conſidered as juſt to a man's family, or conducive to the publick weal, I much doubt. From the experience which I have had in the agricultural world, I have invariably found lands ſo occupied in a much worſe ſtate than thoſe of neighbouring farmers moderately advanced.

An equitable partition of the advantages reſulting from an increaſe of trade and population cannot by any reaſonable tenant be objected to. The one ſyſtem produces care and exertion, and the other indolence and ſloth.

The following are ſome of the common

CLAUSES IN LEASES.

1*ſt*. Not to convert into tillage any paſture or meadow land without leave: nor to have more than one half the eſtate in tillage at one time; and of that half, *one third* at leaſt either to *fallow*, or what is commonly called a fallow-crop, viz. turnips, &c.

2*dly*. To feed and mow the graſs alternately.

3*dly*. Not to pare or burn any land without leave.

4*thly*. Not

4*thly*. Not to plant potatoes for *ſale* without leave.

5*thly*. To ſpend all the hay and ſtraw on the premiſes, and to leave all the dung and ſtraw to the ſucceeding tenant, without any acknowledgment.

6*thly*. Not to let any parcel of the land to any under-tenant without leave.

7*thly*. To keep the meſſuage, dwelling-houſe, barns, ſtables, &c. in good repair, on being allowed rough timber and the labour of the thatcher.

8*thly*. To pay all taxes and aſſeſſments, land-tax excepted.

9*thly*. Not to cut down or lop timber trees, or lop pollards, without leave.

10*thly*. To permit the lord, or his aſſigns, to ſearch for mines, and to hunt or ſhoot on the premiſes.

11*thly*. If paſture land be converted into tillage, the ſame ſhall, the firſt or ſecond year, be manured with not leſs than one hundred buſhels of lime per acre; and after ſuch manuring to have two crops of corn only, and with the ſecond crop to be ſown down in a huſbandry-like manner with artificial graſſes.

12*thly*. At the concluſion of the leaſe to leave a ſufficient quantity of tillage to the ſucceeding tenant, well fallowed, in a huſband-like manner, by proper ploughing, for which the in-coming tenant ſhall pay a proper acknowledgment.

13*thly*. To keep all the fences, gates, ſtiles, &c. in good repair, and to leave them ſo at the end of the term.

14*thly*. To proſecute, if called upon by the landlord, all perſons treſpaſſing on the eſtate, by hunting, ſhooting, fiſhing, &c. compenſation being made to him by the landlord for all expences incurred by ſuch proſecution; to which are added other common covenants.

SECT. 6.—*Expences and Profit of ſixty Acres of Graſs Land.*

DAIRY-FARM,—TWENTY COWS.

DEBTOR.	£.	s.	d.
To rent of ſixty acres, at 30s. per acre —	90	0	0
To tithe and taxes — — —	20	0	0
To the labour of the family ſerving cattle, utenſils, ſalt, and all other articles, 30s. per cow —	30	0	0
To hay-making, &c. twenty acres —	10	0	0
*To manure — — —	10	0	0
To repair fences — — —	2	0	0
To accidents with cows — —	10	0	0
To intereſt of capital — —	10	0	0
	£182	0	0

CREDITOR,

By 70 Cwt. of cheeſe, at 2l. 10s. per Cwt.	175	0	0
By butter — — —	20	0	0
By calves — — —	20	0	0
†By hogs — — —	30	0	0
Creditor	245	0	0
Debtor	182	0	0
Profit	£63	0	0

* This charge rarely occurs.

† Though it is not generally practiſed, a *breeding* ſtock of hogs muſt be conſidered as more profitable on a cow-farm than a *fatting* ſtock. The whey and ſkimmed-milk conſtitute a food well adapted to the rearing of a thriving ſtock; and the writer has known many inſtances of a farmer's ſelling, at ſix months old, a litter of pigs for more than thirty pounds; and this was done from the whey, &c. of ten cows, and without the aſſiſtance of corn, any farther than the run of the farm-yard, and when pig-meat was only 7s. 6d. per ſcore.

The expences and profits of a *corn* farm, or a farm in *mixed huſbandry*, are ſo variable, that it would be difficult to fix a ſtandard. The old idea of the produce amounting to *three rents* would not do *now*, for the expences of living, of taxes, of wages, &c. are of late years ſo much increaſed, that the value of the produce muſt be augmented in proportion.

One remark, however, may be made, namely, that it is univerſally admitted by all ſtewards, that *dairy* farmers pay their rent more punctually than *corn* farmers.

CHAPTER V.

IMPLEMENTS.

THE waggons in general uſe are ſmall, compact, and well made: narrow-wheeled weighing from 15 cwt. to 20 cwt.; the ſix-inch wheels from 25 cwt. to 30 cwt.; the latter drawn with ſix horſes, in pairs.

Some years ago waggons of this deſcription were made 5 or 6 cwt. heavier than they are now. The reduction of the weight, particularly to thoſe who are common carriers, is highly advantageous, being not leſs than fifty pounds per year gained by each team conſtantly employed on the road; and if made with good materials, a light waggon will laſt as long as a heavy one.

Price of a narrow-wheeled waggon twenty-ſix pounds: Six-inch wheel thirty-ſix pounds; axle-tree moſt commonly of wood. The carts generally uſed for the purpoſes of huſbandry run on broad wheels, and hold about four quarters, or thirty-two buſhels, Wincheſter; price about nine guineas: but for road uſe, light carts, drawn by one horſe, are coming into faſhion, and are found the moſt advantageous. Price about four guineas.

The ploughs commonly uſed are ſtrong ſingle ones; ſometimes with one ſmall wheel, ſometimes with a foot only. The great length of the mould-board occaſions too much friction, and it cannot be deemed a good implement; but prejudice is ſtrongly in its favour, notwithſtanding conſiderable pains have been taken to ſhew the ſuperiority of other ploughs.

There are many winnowing machines in uſe, but not a threſhing machine in the whole county. The harrows are

no

no waye ſingular in their conſtruction, they are, by good farmers, linked three together, and drawn by three horſes nearly abreaſt, each horſe drawing a ſingle harrow.* If any particular tool be deſerving of notice, it is the *ſpade*, which is much narrower and longer than thoſe uſed in other counties. Its length is ſeldom leſs than eighteen inches, and its breadth about ſix inches, the back part being gently curved to prevent adheſion to the ſoil.

* The method of harrowing practiſed by the farmers in South Devon cannot be too ſtrongly recommended.

This operation they perform with two harrows, and two horſes abreaſt, a lad being mounted on the near horſe. The horſes are kept to a *full trot*, by which one turn of the harrow pulverizes the ſoil as much as three or four in the common ſauntering method.

CHAPTER VI.

INCLOSING FENCES, &c.

THE fences are quick-hedges, with trees at unequal diſtances. And where ſtones are eaſily got, and lie in a flat bed, ſtone walls, without cement, are built, two feet wide at the bottom, eighteen inches at the top, and five feet high; the total coſt of which wall is about one ſhilling per yard, running meaſure.

I ſhall bring forward a comparative view of theſe walls, with quick-hedges, in treating of the incloſures on Mendip hills, to which I ſhall now proceed.

MENDIP HILLS.

This chain of mountainous land extended, according to the ancient boundary, from Cottle's-Oak, near the town of Frome, to a place called the Black-Rock, in the Briſtol channel near Uphill, being a diſtance of more than thirty miles. A great portion of this land having been incloſed, divided, and cultivated, in the courſe of the laſt forty years, and nearly an equal portion ſtill remaining in its open uncultivated ſtate, I cannot forward the views of the reſpectable Board, under whoſe auſpices this report will be brought forward to the publick, in a better way than by a minute deſcription of the origin, progreſs, and ſucceſs of thoſe undertakings.

And firſt, let us begin with taking a view of the objections which have been ſtarted to this ſpecies of improvement, and ſee if we cannot prove them to be for the moſt part either falſe or frivolous.

1*ſt*. Invaſion of the rights and intereſt of the cottagers.

2*dly*. A

2*dly*. A ſuppoſed injury done to the breeding ſyſtem.

3*dly*. The expences attending the act of parliament with thoſe of commiſſioners, and other ſubordinate agents employed in its execution.

4*thly*. The expence of buildings, ſuch as farm-houſes, barns, ſtables, ſtalls, and pools, for the purpoſe of creating diſtinct farms, ſuperadded to the expences of cultivation and fencing, altogether conſtituting an expenditure which the improved value will not reimburſe.

5*thly*. Injury done to the woollen-manufacture, by leſſening the number of ſheep, and deteriorating the quality of the wool.

6*thly*. A ſuppoſed diminution of the rent of the old farms, to which ſuch commons were appertenant.

The foremoſt of theſe objections carries with it the appearance of a humane attention to the comfort of the poor; but a brief inveſtigation will leſſen its influence, if not totally refute it.

There are but two modes of incloſing commons. Firſt, By unanimous conſent of the parties claiming rights, who delegate power to commiſſioners, choſen by themſelves, to aſcertain their validity, and divide accordingly, under covenants and agreements properly drawn and executed for the purpoſe. Or ſecondly, by act of parliament obtained by the petition of a certain proportion of the commoners, both in number and value, whereby a minority, ſanctioned only by ignorance, prejudice, or ſelfiſhneſs, is precluded from defeating the ends of private advantage and publick utility.

In point of œconomy, the firſt of theſe methods is the moſt eligible, as it ſaves the expence of an act of parliament, with equal ſecurity to the proprietors. But it is ſeldom practiſed, unleſs in commons on *a ſmall ſcale*, from the difficulty

ficulty of procuring the conſent of *every individual claimant*, without which it cannot be accompliſhed.

In either of theſe methods, it is manifeſt that the right of the cottager cannot be invaded; ſince, with reſpect to legal or equitable conſtruction, he ſtands preciſely on the ſame ground with his more opulent neighbours; and as to his intereſt, I can truly declare that, in all caſes which have fallen within my obſervation, incloſures have meliorated his condition, by exciting a ſpirit of activity and induſtry, whereby habits of ſloth have been by degrees overcome, and ſupineneſs and inactivity have been exchanged for vigour and exertion. No ſtronger proof can be given of this than the reduction of the poor's-rate, in many of thoſe pariſhes, wherein ſuch incloſing has taken place.*

Upland commons are principally depaſtured in the ſummer with ſheep; and if a cottager were able to ſtock ever ſo largely, the *winter keeping*, and his total inability to furniſh them with food between the fifth of April and the twelfth of May, (before which time theſe commons ought not to be ſtocked) would be ſuch a drawback as effectually to exclude every idea of profit.

On the *moors*, cottagers within a moderate diſtance from the common generally turned out a cow or two, perhaps a few geeſe, and I believe the latter were the only profitable ſtock. Not one in ten rented land to raiſe winter ſubſiſtence. In ſummer, the moor commons were frequently inundated. The cattle muſt be removed, and temporary paſturage hired on extravagant terms. On the other hand,

* If in every bill of incloſure it were ſtipulated, that a certain number of cottages ſhould be built, to which ſmall allotments ſhould be annexed for the benefit of poor perſons, it would give a ſalutary ſanction to the meaſure, and tend to leſſen the poor's-rate. W. F.

ſhould

ſhould the ſeaſon be favourable, the redundancy of ſtock from an unlimited right of feeding, by reducing the produce of the cottager's cow ſo much below what it ought to be, deprives him of every real advantage.

Proprietors or occupiers of large eſtates, in the vicinity of a common, by turning out great quantities of ſtock by *day*, and taking them home to feed by *night*, have derived the only benefit which an overfed common could afford.

The cattle of the *cottager*, as well as of the *diſtant commoner*, under this competition, muſt unavoidably ſuffer. The latter may be recruited by occaſional removal to better paſturage; the former, having none, muſt hire, or leave them on the common either in a ſtunted or ſtarved condition. Theſe are facts of general notoriety, on which it will not be eaſy to deduce (*communibus annis*) any material benefit to the cottager from ſtocking; but when the expence of winter ſupport is added, the queſtion is decided, and the preſumed *advantage* is converted into a poſitive *loſs*. For ten or twelve ſhillings per annum, a common right might be rented. Nothing gives with greater accuracy the value of a thing, than fair and unreſtrained competition; if ſo, when the privilege of ſtocking a common for a year might be obtained for ten or twelve ſhillings, by a farmer in poſſeſſion of means to accommodate ſtocking to every variety of ſeaſon, what can the value be to a cottager deprived of theſe? Inſtead of ten or twelve ſhillings, the annual nett value of common rights *incloſed* has been from three pounds to twenty pounds per annum, which, as an unqueſtionable fact, eſtabliſhes, without ſcruple or heſitation, the *private* as well as *publick* importance of the incloſing ſyſtem. Moſt of the ſtocking cottagers have rights appendant to the cottages without land, under the denomination of *auſter tenements*. To theſe, allotments are made equal in quantity,

and quality, as to farms of the greateſt extent. Here, the cottage claimant, by relinquiſhing a privilege, injurious rather than lucrative, is placed in a better ſituation than the proprietor of an extenſive farm, who ſurrenders every advantage of ſtocking which *capital*, *ſituation*, and *convenience*, give him, for an equality of allotment with the former, who has no ſacrifice to make, but ignorance and prejudice, and who derives from his allotment a clear undiminiſhed profit.

Beſides, moral effects of an injurious tendency accrue to the cottager, from a reliance on the imaginary benefits of ſtocking a common. The poſſeſſion of a cow or two, with a hog, and a few geeſe, naturally exalts the peaſant, in his own conception, above his brethren in the ſame rank of ſociety. It inſpires ſome degree of confidence in a property, inadequate to his ſupport. In ſauntering after his cattle, he acquires a habit of indolence. Quarter, half, and occaſionally whole days are imperceptibly loſt. Day-labour becomes diſguſting; the averſion increaſes by indulgence; and at length the ſale of a half-fed calf, or hog, furniſhes the means of adding intemperance to idleneſs. The ſale of the cow frequently ſucceeds, and its wretched and diſappointed poſſeſſor, unwilling to reſume the daily and regular courſe of labour, from whence he drew his former ſubſiſtence, by various modes of artifice and impoſition, exacts from the poor's-rate that relief to which he is in no degree intitled.

This deſcription is by no means exaggerated. The pariſh of Wedmore, which abounded with cottage commons, and one of the largeſt and moſt opulent in this county, will illuſtrate its truth and juſtice. Within twenty years there have been incloſed upwards of three thouſand acres of rich moor land, heretofore, when in commons, rendered unproductive by inundations and their conſequences, ſix or ſeven months in the year, and when paſcible for the remaining months,

months, of little value from being overſtocked; which land is now ſet, with liberal allowance of profit to the occupier, from thirty to ſixty ſhillings per acre. Theſe incloſures are made by ditches, which, by annual cleanſing and ſpreading the contents over the ſurface, afford an excellent manure, with a new and extenſive ſource of labour of the moſt productive kind, whereby the poor's-rate has been reduced, or at leaſt has not exceeded its former amount before any incloſure had taken place.*

The ſecond objection to incloſing is the ſuppoſed injury done to the breeding ſyſtem.

Few obſervations will ſuffice on this head. Commons are in general overſtocked. Young cattle abridged of their food become ſtunted in their growth, and injured in ſhape and form. To reſtore them in theſe reſpects, by better keeping, is ſometimes impracticable—always expenſive. It is more than problematical with many intelligent farmers in the neighbourhood, whether, from the circumſtances beforementioned, the breeding ſyſtem on an average of ſeaſons and years has yielded any profit. But this is undeniably certain, that the ſame land, when incloſed and improved, will maintain at leaſt three times the ſtock *breeding*, or *any other*, than it did in a ſtate of nature. Suppoſe every acre of waſte land in Great-Britain by incloſure were improved threefold, what would be the conſequence? A declenſion of the breeding ſyſtem? The very contrary; an extention of it very probably in the ſame proportion. Without breeding, can you graze or make cheeſe and butter? Are not theſe

* It may be here noted as a fact, that in moſt of thoſe pariſhes where no incloſure of the waſte lands had taken place, the poor's levy has been *doubled*, *trebled*, nay *quadrupled*, in the courſe of the laſt twenty years.

different

different modes of occupation moſt intimately connected with, and dependent on each other? Is not the ſame land convertible to all and every of theſe purpoſes, ſubject to the controul and regulation of the market for each? Can young ſtock be kept too well? Should the breeding of cattle exceed the demand, and from a reduction of price no longer pay the rent of land, will the farmer repine, becauſe his land is ſuſceptible of other methods of application no leſs beneficial? Surely not. Could he heſitate what to do, when its high ſtate of culture would direct him either to dairy, or grazing, as attendant circumſtances might require? And ſhould the market be glutted with the produce of dairy and grazing farms, the farmer would naturally recur to breeding ſtock, or raiſing corn; ſo that all theſe articles would find their natural level, which the demand for each, whether inadequate, moderate, or exceſſive, would invariably regulate. But waſte and uncultivated land, being ſolely appropriated to the breeding of ſtock, and not convertible to *any other purpoſe*, is without remedy, whenever the market is overcharged with its produce.

The ſame reaſoning applies to hilly lands in their improved ſtate, by ſubſtituting corn inſtead of dairy or grazing. From the foregoing premiſes, I think it may be inferred, that ſince commons of every deſcription, when incloſed and cultivated, are capable of ſupporting at leaſt *three times* more ſtock than they did in a ſtate of nature, no ſerious apprehenſions ſhould prevail with reſpect to the diminution or injury of the breeding ſyſtem. I do not mean to deny that ſome local diſadvantages may occur; but theſe are too trifling and limited to merit attention, and ſtill leſs to impede the progreſs of an improvement of the greateſt national importance. The preceding remarks more particularly apply to the moor, or low lands. In addition thereto I have

have to obſerve, with heartfelt ſatisfaction, its happy effects on the *health* and comfort of the inhabitants of the adjacent villages. Agues, and low fevers, from the humidity of the air, impregnated with exhalations from the ſtagnant contents of the marſhes, prevailed very generally during the vernal and autumnal ſeaſons; and theſe for the moſt part were obſtinate and more frequently ſubdued by the drought and heat of ſummer, and froſt of winter, than by the moſt judicious medical treatment. Incloſing and draining have rendered theſe diſeaſes as ſcarce in the *low*, as in the *uplands*, to the prevention whereof advance of wages (from four to ſix-pence per day) with conſtant employ ariſing from the ſame cauſe, have not a little contributed, by enabling the poor to *live better*, which is generally accompanied with a growing taſte for comfort and cleanlineſs.

The third objection to incloſing, is to the expences attending the act of parliament, with thoſe of commiſſioners and other ſubordinate agents employed in its execution.

I do not mean to contend, that rigid œconomy, and expert management, have been prominent features in this line of publick buſineſs. I am ready to acknowledge, that in ſome inſtances it has been juſtly chargeable with profuſion, mismanagement, and unneceſſary delay. In ſeveral inſtances within my own cognizance, the moſt enormous expence has been wantonly incurred in obtaining the act, nay, double at leaſt beyond the moſt liberal eſtimate of a fair and equitable charge.

In theſe caſes the exceſs aroſe from the attendance of ſupernumeraries in London, under the pretence of ſecuring and expediting the bill, without rendering the leaſt ſervice in that or any other way. Charges of this ſort are not ſubject to the controul or regulation of the commiſſioners, ſince they originate previous to their appointment; and

ſhould

ſhould they refuſe payment, a law-ſuit of hazardous iſſue might enſue, which, if unſucceſsful, would expoſe them to reproach from the proprietors. The blame therefore muſt attach to the latter, for not exerciſing more vigilance at the outſet of the buſineſs. After paſſing the bill, *delay in the execution*, ſo as to withhold the poſſeſſion of allotments from the proprietors for a year or two more than neceſſary, has been imputable, and with ſome colour of juſtice, to the negligence and inattention of commiſſioners. It muſt be acknowledged ſuch conduct is truly reprehenſible; ſince, under many incloſures, eſpecially of low lands, of prime quality, the loſs of even a year's occupation, if the incloſure be of conſiderable extent, might be deemed nearly equivalent to a moiety of the expence. In this neighbourhood, for ſome years paſt, this defect has been in a great meaſure remedied; for unleſs their proceedings have been interrupted by iſſues at law, or the incloſure has been of great extent, the commiſſioners have given the proprietors poſſeſſion of their allotments within a year from paſſing the act. This diſpatch requires a conſiderable ſhare of judgment and exertion on the part of the commiſſioners, as well as ſufficient leiſure and activity on the part of the ſurveyor. Another error in management relates to the expence of meetings, which heretofore was very improperly augmented by the attendance of ſome of the principal commoners for purpoſes of feſtivity, without being of the leaſt uſe; rather retarding than forwarding the buſineſs. This practice was general; but for ſome years paſt has been for the moſt part aboliſhed, by a very judicious regulation of allowing the commiſſioners and their agents a certain ſum per day as a compenſation for attendance and expences.

The publick will be enabled to judge in what degree the expence of incloſing ought to affect its determinations under the

the preſent courſe of management, by adducing the following ſpecimens of a moor or low land, and a Mendip or upland incloſure;

Low Land.

	£.	s.	d.
Act of Parliament, &c. &c.	510	0	0
Roads	450	0	0
Subdiviſion, Rhynes, or Ditches, 8 feet wide at top, 4 feet at bottom, and 5 feet deep. Price of digging from 1s. 2d. to 2s. per rope (20 feet)	850	0	0
Gates, Bridges	140	0	0
Commiſſioners (3)	200	0	0
Clerk	60	0	0
Surveyor	140	0	0
Award and other Law expences	110	0	0
Intereſt of Money borrowed	25	0	0
	2485	0	0

Upland Inclosure.

	£.	s.	d.
Act of Parliament, &c. &c.	300	0	0
Roads	350	0	0
Fences, part wall, part quick-ſets	850	0	0
Gates, &c.	56	0	0
Commiſſioners (3)	200	0	0
Clerk	80	0	0
Surveyor	80	0	0
Intereſt of Money	35	0	0
	1951	0	0

Under

Under the firſt deſcription, the expence of obtaining the act amounted to upwards of 500l. which, under proper management, would not have exceeded 300l. Near two miles of road; ſtones quarried and broken at ten-pence per load, (eight load to a rope of twenty feet) hallage, at leaſt one ſhilling per rope. Two bridges made; rhynes made for draining the water and fences by ditching, for the ſubdiviſion and allotment of upwards of 800 acres. Commiſſioners attendance, ſurveyors, ſolicitors, and clerks bills, with every other incidental charge, all of which did not much exceed three pounds per acre. The average value of the land, under a moderate computation, may be reckoned at thirty pounds per acre.

The latter is a Mendip incloſure; quantity of land nearly as the former; a mile of road more; fences partly quick-ſet, partly young living ſtock of hazel, black-thorn, &c. and dry wall. Allotments not numerous but large, which materially curtailed the expence of fencing; road materials cheaply got. Parliamentary charges reaſonable; commiſſioners and agents as in the moor incloſure, all of which did not exceed two pounds ten ſhillings per acre. The average value of the land, as aſcertained by the portions ſold to defray expences, may be reckoned at twenty pounds per acre.*

If facts like theſe be inſufficient to appeaſe the clamours of ignorance and ſelfiſhneſs againſt the incloſing ſyſtem, or to enforce conviction on the unprejudiced mind, the effects of reaſon and argument muſt be altogether fruitleſs.

* I never before knew an inſtance of Mendip land in its uncultivated ſtate ſelling ſo high; the general price is from eight to twelve pounds per acre.

The

That the preſent mode of conducting the buſineſs is ſuſceptible of further improvement, no one converſant with the ſubject can deny. Yet to accompliſh this, many obſtacles are to be combated, and perhaps one of the moſt formidable is, that of its having been regarded, more or leſs, as a *little ſyſtem of patronage*. The lord of the ſoil, the rector, and a few of the principal commoners, monopolize and diſtribute the appointments. It is well known, that bills of this ſort have found their way through parliament without the intervention of a country ſolicitor. In caſes where no oppoſition was meditated, the parliamentary ſolicitor, and a ſurveyor, have anſwered every purpoſe. By this, a ſaving was made of from ſixty to a hundred pounds; but this might exclude the friend of one or more of the governing party. In ſome acts, *five* commiſſioners have been appointed; in general there are *three*; but *two* would be ſufficient, with power to nominate a third under the circumſtance of difference of opinion, which ſeldom happens; and in ſmall incloſures, perhaps one commiſſioner would anſwer every purpoſe. If a country ſolicitor be employed, he ſhould act as clerk to the commiſſioners, and ſave the expence of a ſupernumerary in that capacity. Hereby another ſaving would be made, without any injury to the concern. The office of ſurveyor is by no means inconſiderable in the aggregate of expence. This might be diſpoſed of, under a fair competition, to the loweſt given ſum for executing the whole of the buſineſs, (after the act is obtained) by advertiſing for propoſals to ſuch effect; taking care that the contracting party be competent to the undertaking. This alteration, it is probable, would ſave one-third, and in ſome caſes nearly half of a bill made out by charges in detail.

In the choice of commiſſioners, it is of the utmoſt conſequence to appoint *one*, at leaſt, in the neighbourhood of the incloſure,

incloſure, familiarized with all the varieties of the ſoil, with the influence of ſeaſons, and with its local peculiarities; whereby its preſent value, and capacity for future improvement would be aſcertained with preciſion, and the important office of qualifying the land executed with ſafety and confidence. The next in the ſcale of utility ſhould be a perſon converſant with all the forms and routine of the buſineſs; well inſtructed from experience in accounts, and in the prices and different modes of fencing, making roads, bridges, gates, &c. of general and comprehenſive knowledge of agriculture, both practical and ſpeculative, and of genius to ſuggeſt ſuch modern improvements as are beſt adapted to the ſituation and ſoil. Two perſons, thus qualified, are fully competent to execute the office with credit to themſelves, and juſtice to the proprietors. But ſhould the concern ſuffer by the abſence of either, through ſickneſs, private buſineſs, or any other cauſe, a clauſe in the act might be inſerted, impowering them, or the proprietors, to chooſe a third for the purpoſe of avoiding delay. Commiſſioners, whoſe reſidence is at a great diſtance, ſhould (on account of the extra charges of time and travelling expences) only be reſorted to as an alternative, from the impoſſibility of getting others properly qualified near home.

The office of commiſſioner is, without doubt, the firſt in conſequence and authority, under an incloſing act, but with reſpect to *emolument* the very loweſt. Even the clerk's bill of charges, *not* as a ſolicitor acting in that capacity, but as any other indifferent perſon did in times paſt, exceed twice, and ſometimes three times the amount of the fees of the former. The publick have been not a little miſled in their conceptions of this ſubject. The real fact is, that the whole of the reſponſibility attaches to the office of commiſſioner, which,

which, in pecuniary recompence, is by far the moſt inſignificant.*

Thus have I impartially ſtated the defects of the preſent ſyſtem, with their correſpondent remedies. In its moſt improved ſtate it will retain ſomewhat of imperfection, which perhaps cannot be entirely obviated.

I ſhall only add, that within a few years paſt, in the neighbourhood of Wells, an incloſure was *farmed* by an attorney of extenſive practice, and well known reſpectability, at a ſum conſiderably leſs than it would have amounted to in the uſual way. The commiſſioners were appointed by the proprietors; the buſineſs executed with ſingular diſpatch, and all parties intereſted perfectly ſatisfied. Fences, roads, &c. were made by the proprietors.

When the incloſing ſyſtem is appreciated by its obvious tendency to increaſe the produce of land, and the demand for labour, to augment the rate of wages to the huſbandman, and to leſſen the amount of the poor's rate, it is a ſubject of regret and aſtoniſhment, that ſo few means have been deviſed by the legiſlature, either to facilitate, or extend its progreſs. How much is to be done this way, a general incloſure act, unfettered by tedious and expenſive formalities, would ſpeedily manifeſt. From the very great number of private acts which have paſſed within the laſt twenty years, ſuch general principles might be ſelected for its baſis, as to implicate almoſt every poſſible variety of claim, intereſt,

* Under the allowance of two guineas a day, the nett receipts of a commiſſioner, after deducting daily expences, horſe-hire, &c. does not exceed twenty-four ſhillings; and where a ſervant is kept, eighteen ſhillings per day. This is no extravagant compenſation, particularly when we reflect that the *wear* and *tear* of *conſtitution*, *clothes*, &c. are left out of the calculation.

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and property. An act thus conſtituted might, without hazard, or injury, be entruſted to a given number of juſtices at the quarter-ſeſſions, to diſpenſe its powers, and controul its execution; and ſuch juſtices, I ſhould conceive, perfectly competent to determine on the propriety or impropriety of any propoſed incloſure.

Thus a total extinction of parliamentary expence would encourage incloſing on the ſmalleſt ſcale, and, with advantages not to be deſpiſed, would accommodate the moſt extenſive.

This meaſure, however conſonant to the principles of individual benefit, and national policy, would notwithſtanding have a hoſt of adverſaries to encounter.

Fourth objection.—The expence of cultivation and buildings, ſuch as farm-houſe, barn, ſtable, ſtalling, pools, &c. for the purpoſe of creating a diſtinct farm, &c. &c.

The low land, or moor incloſures, being principally appropriated to grazing, dairy, or feeding young and poor ſtock, are not within the limits of this objection. It is therefore confined to the upland or Mendip incloſures.

The nature of Mendip ſoil, its firſt manure, the mode of cropping, the neceſſity of ſpending thereon the whole of its produce, of hay, ſtraw, &c. will be ſeverally noticed hereafter, and conſequently will not be attended to in this place.

By a reference to theſe particulars, the neceſſity and advantage of buildings muſt be obvious, as not only contributing to the ſoil its utmoſt latitude of improvement, but alſo, when obtained, the means of preſervation therein. Without a barn, ſtalling, convenient farm-yard, and pool, neither one nor the other can be accompliſhed.

But it may be aſked, are buildings to be provided for every allotment? By no means. I do not think they are admiſſible, with the addition of a farm-houſe, on a ſmaller ſcale of land than 100 acres. The expence to accommodate

date this quantity with a farm-houſe, barn, ſtable, ſtalling, barton, pool, and pig-ſtye, ſhould not exceed three hundred pounds.

The next ſubject of enquiry is the additional value communicated to the land by buildings. Should this be anſwerable to the expence incurred, the whole of the objection muſt fall to the ground, notwithſtanding its apparent plauſibility.

Let us ſuppoſe an hundred acres of Mendip land incloſed, and divided into four pieces of *prime* quality, but deſtitute of buildings; grant a leaſe of it to a farmer of property and judgment for twenty-one years, (a ſhorter term would be injurious to the landlord) and I may venture to ſay, that more than twenty ſhillings per acre could not be got for it, accompanied with the uſual covenants and reſtrictions to guard againſt wilful impoveriſhment. With equal confidence, I may aſſert, the ſame land, *with ſuitable buildings*, would let to the ſame farmer, for a like term, at twenty-five ſhillings per acre, with a ſubdiviſion of the four pieces into ſix. The increaſe of rent in the latter caſe will be twenty-five pounds per annum. Allow an intereſt of ſeven and half per cent. on the capital of three hundred pounds expended on the buildings, which amounts to twenty-two pounds ten ſhillings, and there will remain two pounds ten ſhillings as intereſt on the money laid out to make fences under a ſubdiviſion, and if quick-ſet, to rear them when made. Under this plan, you do juſtice to the native qualities of the ſoil, by giving it a ſeparate and independent exiſtence as a farm; and with a leaſe of proper covenants, you need not fear its being exhauſted.

A ſpeculative farmer will be apt to exclaim, Is it poſſible that the want of buildings can create a difference of five ſhillings per acre to the occupier? Moſt aſſuredly it is;

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as will be evident by even a very general ſtatement of the comparative effects of a twenty-one year's occupation, *with* and *without* buildings. To begin with the latter; here lime muſt be chiefly, if not altogether depended on, as a manure. This, even with ſucceſſive cropping with corn, will maintain its ground tolerably well during the firſt ſeven years. Its ſecond application is attended with conſiderable diminution of its efficacy. From this period, the degeneracy of the ſoil is no leſs rapid than aſtoniſhing: it becomes light; coltsfoot and couch-graſs abound; clover and ray-graſſes fail. Intervals of reſt of three, or even four years, ſeldom recruit its vigour ſufficiently to produce even a moderate crop of oats, which, if followed by a ſecond of the ſame grain, would ſcarcely return the ſeed. Feed during the two laſt years of reſt, not worth more than nine ſhillings per acre. No turnips for want of dung; no fold, becauſe the land is too much impoveriſhed to maintain it; ſtraw carried off, and clover hay only partially conſumed on the premiſes by reaſon of the expoſed ſituation. In this unproductive ſtate, the land muſt remain during the laſt nine years of the term, reduced to the value of ten or twelve ſhillings per acre, and with little proſpect of melioration.

Painful and diſguſting as this repreſentation muſt be to every judicious farmer, it is nevertheleſs ſtrictly conformable to fact; and many inſtances might be adduced to eſtabliſh its veracity in every point. Such has been, and moſt probably ever will be, the ſituation of Mendip incloſures, *without buildings*, and more *judicious courſe of crops*. *With* buildings, we have to contemplate effects directly oppoſite, under a ſimilar term of twenty-one years. Lime, in the proportion of twenty quarters per acre, will ſuſtain the land, with little abatement of its fertility, for the firſt ſix or ſeven years. During this period, farm-yard manure will be plentifully

tifully ſupplied, and may be devoted to turnips, cabbage, and potatoes, on a conſiderable ſcale, as it will not be wanted either for corn or clover for ſeveral ſucceeding years; it may be appropriated to turnips and clover, aſſiſted by the fold, which a feed of clover and ray-graſs of the ſecond year will ſufficiently maintain. Should theſe reſources be thought inadequate to ſupport the whole of the land, from the ninth or tenth year, piece after piece in ſucceſſion might be broken up, and limed afreſh, with an effect very little, if at all, inferior to that of its firſt application; as dung and the fold are found excellent preparatives for the repetition of this manure. By the alternate uſe of lime, dung, and the fold, together with the following rotation of crops:

1ſt year, Oats on the Lay
2d — Winter and Spring Vetches folded off, and Turnips
3d — Oats and Artificial Graſs Seeds
4th — Artificial Graſs Seeds mowed
5th — Ditto fed
6th — Ditto ditto:

which the improved huſbandry of the laſt twenty years has ſuggeſted, and which is gradually extending to the mutual intereſt and ſatisfaction of landlord and tenant, it muſt be evident, that the land under a term of fourteen or twenty-one years cannot ſuſtain the leaſt injury, but muſt be in a ſtate of melioration and improvement. By the preceding obſervations, I truſt the propriety and advantage of buildings, erected on a ſcale of Mendip incloſure of one hundred acres and upwards, are fully eſtabliſhed to the conviction of every unbiaſſed mind. Under this ſtatement, what plan of management ſhould be adopted for ſmaller incloſures? Separate occupation at a diſtance from the farm-yard, by the expence of carting, ſo as to preclude the return of produce in dung, muſt neceſſarily impoveriſh. Muſt incloſures of this deſcription then be abandoned to the fate of a wretched

and ruinous huſbandry? By no means. A remedy as a palliative, if not wholly effectual, may be found. In the greater part of Mendip incloſures, either by allotment or purchaſe, or both, a ſufficient portion of land has been veſted in an individual, to induce the neceſſity of building, with local reſidence and occupation of the farmer. The ſmaller incloſures ſhould be let to the tenant or tenants of theſe farms, for the ſame term, and ſubject to the ſame covenants and reſtrictions, under which ſuch farms are reſpectively held; with, however, a proportionate abatement of rent, by way of an equivalent for the want of buildings. If the lands with the latter be rented at one pound per acre, the former ſhould be rented at fifteen ſhillings, or at moſt at ſixteen ſhillings; and if either price be obtained, ſmaller incloſures would be provided for, on a footing without buildings, equally, if not more advantageous than larger, with them. Perhaps it may be objected to this plan, that by ſuch additions Mendip farms would become too extenſive and unwieldy for general occupation. Under an improved ſyſtem of management, it is now well known that the moſt profitable deſtination of theſe farms muſt be, with little variation, to *corn* and *ſheep*; and for theſe purpoſes, it is no leſs obvious that farms cannot be well too *large*, provided tenants can be found of ſufficient ability and capital to occupy. This, at firſt, may create ſome difficulty and inconvenience, in letting to farmers in a neighbourhood where the largeſt farms ſeldom exceed two hundred pounds per annum.—This, however, can only be temporary; ſince the quality of the ſoil and the ſituation are favourable to corn and ſheep, and begin to attract the notice of farmers, who have been accuſtomed in other counties to occupy farms of this deſcription on a very large ſcale. Theſe, by a ſyſtem of management adapted to the foregoing purpoſes, founded on experience,

experience, and proſecuted with vigour, will ſoon convince thoſe of the neighbourhood that *Mendip farms*, thus appropriated, of almoſt any extent, may be occupied with as much ſafety and advantage as can be reaſonably expected or deſired.

Having ſtated 300l. as the ſum requiſite for buildings to accommodate one hundred acres of land, I would obſerve, that 400l. would accommodate two hundred acres; 500l. four hundred acres; and 600l. five hundred acres; ſo that this expence decreaſes by an inverſe ratio as the farm is augmented: and in like manner that of fencing, as a large farm requires leſs ſubdiviſion than a ſmall one. Both theſe circumſtances further tend to juſtify the predilection for *large* farms.

I ſhall conclude this head, by adducing an inſtance to exemplify the neceſſity and importance of raiſing Mendip incloſures to ſeparate and diſtinct farms.

About twenty years ſince, near ſix hundred acres of Mendip land were incloſed, the property of a gentleman of large landed eſtate in the neighbourhood. For ſituation and quality, it could not be ſurpaſſed by any land of this ſort. The contiguity to markets with good roads was another privilege; the quantity was equal to a reſpectable farm; and 600l. was judged ſufficient to provide the neceſſary buildings, in the opinion of thoſe who recommended the meaſure. A gentleman farmer from Norfolk, of conſiderable property, was ſo much ſtruck with the ſoil, ſituation, and other circumſtances, as to declare, that if proper buildings were erected, he would give fifteen ſhillings an acre for a term of twenty-one years; this was refuſed, nor have any buildings been erected ſince. The land was let to the proprietor's tenants of the adjacent farms in different proportions, at not more than twelve ſhillings per acre for the firſt

nine or ten years, but ſince, for not more than ten ſhillings. Great expectations were formed on the improvement of *the old farms*, by the produce of the new incloſure being entirely conſumed thereon. Theſe, however, are not realized, for the ſtraw was for the moſt part ſold to the adjacent towns, and during the firſt ſeven years of tillage, it was no unuſual practice to crop with oats three or four years *ſucceſſively*; yet ſuch was the fertility of ſoil, and its aptitude for this ſpecies of grain, that the produce in favourable ſeaſons, with a ſingle ploughing, has been occaſionally ſix quarters per acre. The conſequences of this wretched huſbandry, with regard to the ſoil, are too apparent to particularize, and too abſurd and ruinous to need any further comment. I ſhall only ſubjoin, had a diſtinct farm been made in this caſe, ſeven per cent. would have been paid for the buildings, excluſively of *an increaſe of rent of upwards of one hundred pounds per annum*, and the land under a proper leaſe, inſtead of its preſent reduced rent of ten ſhillings or twelve ſhillings per acre, would have attained a permanent value of a guinea per acre.

The fifth objection involves two diſtinct relations:

1ſt. Deterioration of the quality of wool.

2dly. Diminution of its produce by leſſening the number of ſheep.

With reſpect to the firſt, by way of preliminary, it may be neceſſary to enquire, to what degree has this deterioration of quality manifeſted itſelf by a reduction of price on wool from ſheep of the *ſame ſpecies*, fed on improved and *cultivated lands*, or on *common* and *waſte lands?* Was this point, ſo eſſential to the preſent diſcuſſion, ever aſcertained by fair and accurate experiment? If not, the objection is wholly hypothetical. If it have, the reſult ought not only to be known but eſtabliſhed as data to argue from. Nothing of this

this kind, however, has fallen within my obſervation. I muſt therefore proceed aſſumptively, and grant, for the ſake of inveſtigation, a deterioration of quality as far as ſix-pence in the pound by depaſturing ſheep, which afford the fineſt Engliſh wool on *cultivated* land, inſtead of waſte or *barren*. If the conceſſion as to price be ſufficiently liberal, let us enquire how far the publick or individuals are obnoxious to injury therefrom. The clothier may mix ſomewhat leſs of this ſort of wool with Spaniſh, the better to diſguiſe the alteration in quality; or if uſed by itſelf, ſome difference in the texture or feel of the cloth might be the conſequence. But if the alteration be *univerſal*, in neither point of view could any particular clothier, nor the trade collectively, be affected by it; and it is at leaſt probable, the publick at large would not be endued with ſufficient knowledge of the manufacture to detect it, or if they did, would regard it as too frivolous to merit notice. Allow for a moment the fineſt Engliſh wool to be worth two ſhillings per pound, from ſheep fed on commons or waſte land, and one ſhilling and ſix-pence if fed on cultivated land. In the former caſe the manufacturer of cloth would be a gainer, by having four pounds of wool for the ſame money as three pounds, and he could not complain of a proportional reduction of price; a benefit might therefore, but no poſſible injury could accrue, to this party in the buſineſs. Let us now advert to the farmer, who not only repreſents himſelf, but the nation at large, as being deeply intereſted in the increaſed produce of land, not only in *this*, but in every poſſible variety of its application. Enquire of the farmer, and he will tell you, that on an acre of cultivated land, by the aid of turnips and graſſes, he can keep four ſheep inſtead of one on waſte or land in common, and this too with an undoubted augmentation both of fleece and carcaſe. He has, therefore, four

fleeces

fleeces and four carcaſes inſtead of one, with a manifeſt improvement in the value of each. Muſt he then, from a mere phantom of a grievance which bewilders the imagination of the manufacturer, relinquiſh advantages of decided and unſpeakable importance both to himſelf and the publick? Surely not.

The foregoing remarks apply principally to the ſmall breed of ſheep; but this ſort is apparently on the decline in favour of the improved breeds of Dorſetſhire, South-down, and other larger ſorts, as being more productive in wool, (quality and quantity conſidered) in ſize of carcaſe, and in requiring a leſs given time to graze. Let it be admitted from theſe conſiderations, that in courſe of time the former breed ſhould become extinct. What then? Should a real degeneracy of the quality of wool, magnified by the fears of the manufacturer, be permitted to militate againſt the ſolid benefit enumerated as above? The quality of cloth as to fineneſs is *comparative*. Diſtinction would vaniſh, pride and vanity would ceaſe to murmur, if the wool deſtined to the manufacture of cloth were of the *ſame* quality, however coarſe. The more *opulent* claſſes of ſociety might ſtill be gratified with cloth made entirely of Spaniſh wool; the *middle* with a mixture of Spaniſh and Engliſh; and the *lower* with that wholly manufactured of Engliſh wool. But all this being uniform in its operation and effect, and being evidently calculated to advance national proſperity, as well as individual advantage, could create no ſymptoms of mortification or diſguſt. Let us contemplate the ſubject under the ſtill more intereſting claims of humanity. Can the little farmer and the artificer, the labouring manufacturer and the huſbandman, be fed with the fleece? Suppoſe this valuable ſpecies of animal food were confined to the ſmall breed, would there not be a diminution of its quantity ſo conſiderable

able as might probably advance the price of mutton from four-pence to ſix-pence per pound? Let it be remembered too, that in proportion to the increaſed value of the fleece, the farmer will be enabled to reduce the price of the carcaſe; for his profit is derived from the *whole animal*, not as ſeparated into parts. Therefore the more value the fleece, the cheaper he can afford to ſell the carcaſe.

The next article under this objection, is the diminution of the produce of wool by leſſening the number of ſheep.

This takes for granted what ſtill remains to be proved, namely, that the incloſing of commons, fed principally by ſheep, has a tendency to leſſen the breed. I ſhall conſider this objection as applicable to ſheep *in general*, and not to any particular deſcription or ſpecies. Here I have not only my doubts as to the truth of the poſition, but I am inclined to think that the number of ſheep will be *increaſed* thereby, and this too in a very conſiderable degree. For, perhaps, four years after incloſing, an exception may be pleaded, ſince this portion of time muſt be allowed to a courſe of tillage *neceſſarily* previous to the cultivation of ſheep feed. This circumſtance, as being altogether temporary, ſhould not in the leaſt operate as a deduction from the validity of the opinion. From this period, when turnips and artificial graſſes are brought forward, I would date my calculation.

Recurring to a former obſervation, that Mendip or upland incloſures were moſt profitably applied as corn and ſheep farms, I will ſuppoſe one of this ſort to conſiſt of four hundred acres. In its cultivated ſtate, one hundred acres may be allowed to ſuſtain as many ſheep as the *whole* did when in common, and a leſs proportion of land than this will ſcarcely be allowed for ſheep feed. If this be admitted, let me aſk what becomes of the futile apprehenſions of *leſſening the number of ſheep*. Let the manufacturer no longer repine,

repine, nor the *timid* ſenator be the victim of groundleſs diſtruſt: the former will have the ſame quantity of wool provided from a fourth portion of land as was before devoted to the purpoſe, and the latter will have the conſolation to reflect that the other three-fourths are raiſed, from a ſtate totally unproductive, to a capacity of ſupplying its owner with corn, and paſturage for cattle.

I have ſome reaſon to believe, that unfavourable impreſſions have been made on the minds of both houſes of parliament againſt a general incloſing ſyſtem; and theſe may have ariſen from the magical influence of an expreſſion long ſanctified by the publick mind, namely, that of the woollen manufacture being the *ſtaple trade* of the nation, to which even the land, in all its diverſity of produce, muſt ever be ſubordinate under every kind of parliamentary regulation. A little conſideration would ſerve to detect the fallacy of this opinion.

But to recur. In this farm of four hundred acres, ſuppoſe one hundred and fifty ſhould be appropriated to ſheep. On the ſame ground of reaſoning, this would increaſe the number by the addition of a moiety. Perhaps this proportion of ſheep-food is much nearer to the ſtandard of practice than the former; if ſo, in any ratio, the manufacturer, inſtead of being abridged of his ſupply of wool by incloſing, will have conſiderably more, and probably too at a reduced price.

Such are the facts relative to Wool: the concluſions are ſimple and obvious. The ſuſpicious manufacturer, actuated by a ſpirit of monopoly which the legiſlature has ever been too much diſpoſed to countenance, may reſt ſatisfied that he can receive no *injury*, but may great *benefit* from the incloſing ſyſtem.

The

The ſixth objection ſuppoſes a diminution of the rental value of eſtates, to which commons are appertenant.

In *theory*, this may appear in ſome degree ſpecious, becauſe an increaſed produce, without an increaſed conſumption, would more or leſs countenance ſuch an inference.

But admitting the premiſes, it induces the neceſſity of inveſtigating the relative operation of the cauſe preſumed. Let us ſuppoſe a farm with common appertenances to be worth one hundred pounds per year, and that by a deprivation of the common its value be reduced five pounds per year. If the common *incloſed* be worth ten pounds per year, the objection muſt give way.

This ſtatement, however, beſtows a degree of importance on the objection which it ſcarce deſerves; for in fact, the incloſing both of the low and up-lands has been uniformly accompanied with an increaſed produce from *both*; and it is no leſs true, that ſcarce an inſtance can be produced of the leaſt abatement in rent on the *old eſtates*, in conſequence of the tenants being deprived of their *commons* by incloſing.

I ſhall now proceed to a minute delineation of the general practice of farmers occupying land in this foreſt; and endeavour to ſhew how far the general end of improvement has been kept in view, how far it has been deviated from, and in what reſpect the general ſyſtem is ſuſceptible of amendment.

It appears, by the foregoing ſtatement, that the expences of the act of parliament, commiſſioners fees, roads, dividing and allotting, fencing, drawing and enrolling the award, and all other incidental expences, ought not to exceed two pounds ten ſhillings per acre; to this muſt be added twenty ſhillings per acre for raiſing the quick-ſet hedges to maturity; and to avoid objections, I will ſay fifty ſhillings per acre for neceſſary buildings, pools, &c.

Let

Let us now endeavour to ſtate the "*cui bono*" of ſuch ſpeculation.

In its open uncultivated ſtate, the value of this waſte could not be eſtimated at more than three ſhillings per acre; indeed it is a matter of doubt, all circumſtances conſidered, if it were worth *any thing* to the poſſeſſors. In its incloſed ſtate, and previous to its cultivation, it might be let for eight ſhillings per acre; and when cultivated and manured with lime, its value will be advanced to fifteen, twenty, and in ſome inſtances to thirty ſhillings per acre.

Let us ſtate the account both ways.

Dr.	£.	s.	d.		*Cr.*	£.	s.	d.
To firſt value 3s. per acre, and 25 years purchaſe	3	15	0					
To incloſing, dividing, without buildings	3	10	0		By value at 8s. per acre, 25 years purchaſe	10	0	0
Profit	2	15	0					
	£.10	0	0			£. 10	0	0

In this inſtance the profit is not deſpicable.

OR,

OR, SECONDLY,

Dr.	£.	s.	d.	*Cr.*	£.	s.	d.
To above coſt without buildings	7	5	0				
To buildings, &c.	2	10	0				
Sundry plowings, harrowings, and liming, 20 qrs. per acre	4	5	0				
	14	0	0	By value at 15s. per acre, 25 years purchaſe	18	15	0
From which muſt be deducted the value of the firſt crop, excluſive of ſeed, intereſt of money, and all other charges	3	12	0				
	10	8	0				
Profit	8	7	0				
	£.18	15	0		£.18	15	0

There are few ways in which money or induſtry can be employed to greater advantage than this, or in which the publick good can be more promoted; and yet I have frequently heard men, in other reſpects of ſound underſtanding, ridicule ſuch ſpeculations as altogether viſionary, and abſurd.

Were it even admitted, that the adventurers in theſe ſchemes are for the moſt part ſufferers, yet it cannot be denied that the community is benefited, inaſmuch as the land is made to produce ten times as much as it did in its primitive ſtate; and the amount of labour is nothing but an addition to the capital ſtock of the nation.

Notwith-

Notwithſtanding theſe improvements, on the foreſt of which we are now treating, have been carried on with unabating ardour and activity, yet it will appear by the following ſtatement, that much is left to be done:

INCLOSED.		UNINCLOSED.	
Pariſhes	*Acres*	*Pariſhes*	*Acres*
Leigh	100	Chewton	2000
Aſhwick	350	Eaſt-Harptry	1100
Cranmoor, &c.	400	Priddy and Stoke	1200
Charterhouſe	1000	Cheddar	2500
Hayden	400	Axbridge	300
Ubly	950	Compton-Biſhop	500
Bleadon	1000	Winſcomb & Shipham	800
Doulton and Stoke	800	Rowboro'& Churchill	1000
Shepton	800	Berrington	1000
Shuters Bottom	600	Charter-Houſe	350
Weſtbury	350	Banwell, Lockſtone, Curſton, Locking, and Hutton	800
Weſt-Harptry	900		
Compton-Martin	700		
Blagdon	800		
Old-Down	50		
Dinder and Croſcomb	800		
Chilcot and Horrington	800		
Wells	2800		
	13,600		*11,550

* This account was taken in 1794, ſince which acts have been obtained for the incloſing of Eaſt-Harptry, Cheddar, Banwell, Chewton, and Winſcomb. All the others are likely to follow. J. B.

The

The ſoil of theſe hills is for the moſt part deep, loamy, and of a good conſiſtence; and were the climate more genial, could not fail of being highly productive *in all ſeaſons*. Occaſionally are to be found ſpots of land leſs valuable, being of a light ſpungy nature, black in colour, and totally unproductive of corn on *firſt cultivation*.

Nature, however, has wiſely provided a manure within itſelf; for under the ſurface, at the depth of a foot, is generally found a ſtrong clay, which, being ſpread after the rate of thirty or forty cart-loads per acre, gives ſuch a tenacity to the ſoil as enables it to produce corn or any crop in great abundance.

And here let me adviſe a general inveſtigation of the ſubſtrata of all ſoils about to be improved; for I verily believe, that in moſt inſtances a manure may there be found near at hand, and congenial thereunto. Do we not frequently find clay under ſand, and ſand under clay; under flint, *chalk*; under white-lias or ſtone-braſh, *marle*; under red earth, *lime-ſtone*; under peat-bogs, ſea *mud* or *clay*? Are not theſe circumſtances ſufficient indication to the wary huſbandman, to examine minutely the interior quality of his land previous to applying extraneous and expenſive manures?*

* An incontrovertible proof of the juſtneſs of this obſervation was exhibited about twenty-four years ago at Eaſt-Cranmore, one of the firſt commons on Mendip incloſed by act of parliament. On making the banks round a field of twelve acres, of which almoſt the whole was black ſpongy earth, a great part of the ditches, conſiſting of a yellowiſh red tenacious earth ſtrongly verging to clay, was thrown by their ſides to make room for what was thought better mould for the plants to grow in. The field was ploughed and ſown on one earth with oats, previous to which the malm, as it is called, by the ſide of the ditches was ſpread and levelled. The conſequence was, that on the black earth there was a very thin crop not equal to the ſeed ſown, whilſt round the ditches, where the malm was ſpread, there was a fine luxuriant growth. R. P.

The

The climate of theſe hills is cold, moiſt, and boiſterous, during the winter ſeaſon, and frequently immerſed in fogs; but in ſummer, the air is clear, ſalubrious, and invigorating. And it frequently happens that potatoes, French beans, and other ſpring crops, are deſtroyed in the *vale* by froſt in April or May, when thoſe on the *hill* are in no degree injured.

The favourite corn crop is *oats*, which are produced in great abundance, and of good quality. The wheat and barley are inferior, being thick in the ſkin, and of a dark colour; however, the defect in *quality* is amply made up by the *quantity*; for it is no unuſual thing, after the land is manured with lime, to get from twenty to thirty buſhels (Wincheſter) of wheat, and forty or fifty buſhels of barley per acre. As to oats, the uſual crop is from forty to ſixty buſhels.

But the moſt eligible mode of conducting a farm on lands of this deſcription, is to grow *comparatively* but little corn, and *that little* in the higheſt perfection. To have a great breadth of turnips, cabbages, potatoes, vetches, artificial-graſſes, and conſequently to maintain a great ſtock. To provide all neceſſary buildings for ſhelter in the winter, and for the purpoſes of making mountains of dung, which the large produce of ſtraw will enable the occupier to do. If ſheep be kept, let the choice be of wedders, (a breeding flock on ſuch expoſed ſituations is hazardous) and let them be folded every night in the year.

By theſe means, lands of this deſcription may be carried on in a progreſſive ſtate of improvement; and if the preſent price of the different articles of produce be not greatly reduced, neither the proprietor nor the tenant will have any reaſon to complain.

FENCES, BUILDINGS, &c.

Let us now proceed to a deſcription of the fences, buildings, reſervoirs or pools, limekilns, roads, and all other the needful appendages to ſuch undertakings.

There are various modes of fencing, and each has its advocates, but the two principal are *walls* and *quickſet hedges*.

WALL FENCE.

In moſt inſtances, the *outſide bounds* are a wall fence, five feet ſix inches high, two feet and a half wide at bottom, and fifteen inches at the top, which is covered with a turf of ſix inches put on in the form of an arch, making together an height of ſix feet. This wall is partly dry and partly cemented with mortar, or what is commonly called a *liſt-wall*. In ſome inſtances, where a flat bed of ſtone can be procured, it is made without cement, and if well built ſuch a wall is very durable. When the ground is level, the foundation of the wall is laid on the turf, and this is to be preferred, as it will not be ſo apt to ſink as when a trench is dug. The expence of a liſt-wall may be thus calculated per rope of twenty feet running length:

	£.	s.	d.
To quarring or digging eight loads of ſtone, (25 cwt. each) at 3d. ——	0	2	0
To halling the ſame, ſuppoſing the diſtance half a mile, at 6d. —— —	0	4	0
To building per rope, (twenty feet) at 3s. 6d.	0	3	6
To ſeven buſhels of lime, at 3d. ——	0	1	9
To covering with turf (if done very well) —	0	0	3
	*£. 0	11	6

* In conſequence of the advanced price of wages and of coal, about fifteen per cent. muſt be added to theſe calculations—1797. J. B.

DRY WALL.

	£.	s.	d.
To quarring as before	0	2	0
To halling ditto	0	4	0
To building, at 2s.	0	2	0
To turfing	0	0	3
	0	8	3

When ſtones can be got within a wheeling diſtance, or about ſixty or ſeventy yards, the coſt will be reduced about two ſhillings per rope, and if the wall be *wholly* made with cement, it will be enhanced about two ſhillings and ſix-pence per rope.

In making of dry ſtone walls, two maſons ſhould work oppoſite each other, ſo that the ſurface of their work may be always level. Stones alſo ſhould be occaſionally ſelected of a ſufficient length to reach the whole breadth of the wall; this precaution will bind the work together, and render it durable.

QUICKSET HEDGES.

Theſe hedges, if rightly managed and attended to whilſt young, are in themſelves great advantage and profit; they afford good ſhelter for the cattle, and they furniſh fuel and writh or dead fence for the neceſſary purpoſes of the occupier.

The firſt thing to be done, is to mark out the courſe of the ditch. The dimenſions of the bank on which the quick-ſets are planted is generally ſix feet at the bottom, three and a half

a half feet at the top, and two feet high.* On each ſide is a ditch three feet wide and two feet deep; the ſides being made ſloping, and the bottom not wider than ſix inches; this is to prevent the cattle from walking in the ditch and cropping the young ſhoots. In making the ditch, the men ſhould be particularly careful not to throw any bad earth from the bottom of the ditches into the centre of the bank. If this be done, the growth of the quick will be greatly retarded. The making this bank will coſt nine-pence per rope (twenty feet.)

Let the ſets be taken from a nurſery formed on a good ſoil; let them be ſtraight in their growth, having been once tranſplanted from the ſeed-bed, and four or five years old. The ſhoots ſhould alſo be ſmooth on the bark, and well rooted. Theſe ſets are worth about one ſhilling per hundred.

The bank being thus prepared, and the quick ready, let a trench be cut in the middle of the bank, and let the ſets be cut off and laid with the head inclining a little at the diſtance of about three inches from plant to plant. Let the roots be then covered with a little of the beſt mould, after which fill up the whole trench with rotten dung, or compoſt, ſtrewing a little more good mould on the top. The digging the trench and planting will coſt two-pence per rope.

Nothing more is neceſſary than to ſecure them from injury. For their defence therefore, and ſhelter, two dead hedges muſt be made about four inches diſtant from the

* In ſome inſtances there is only one ditch, the earth on the other ſide being worked off to a ſlope; by this plan the bank is kept more moiſt, and the thorn plants flouriſh better.

outſide edges of the bank.† Theſe hedges are about two feet and half high, and compoſed of wreath or buſh wood, with a proper number of ſtakes; the expence of materials and labour is about two ſhillings and ten-pence per rope. Time of planting the quick either in the months of October, February, or March. It is the practice of ſome to plant *two* rows of quick inſtead of *one*, but I have not found this plan ſucceed well. Some alſo recommend the planting at a greater diſtance than three inches, under an idea that *thick* planting retards the growth; but I have invariably found that the hedges planted *thick* thrive the beſt.

Some adviſe the planting of timber trees in the hedge, but I think it a bad practice, as the dripping from them frequently kills the thorn plants, and makes a vacancy in the hedge.

After this, the young quick muſt be carefully weeded and hoed twice a year, and particular care muſt be taken to prevent their being cropped either by cattle or ſheep, both of which are very fond of the tender buds; and if by any accident they have gained acceſs to them, and gnawed them, they muſt be cut down within an inch and half of the ground. In cold expoſed ſituations, *two ſets* of dead fences are requiſite to bring the quick to maturity, and the coſt may be thus calculated:—

† The expence of ſecuring thorn hedges with oak railing is very expenſive, and in ſome inſtances has exceeded the value of the land ſo incloſed—beſides, the young quicks are not ſo well ſheltered as by a wreathed hedge, and conſequently do not make ſo rapid a progreſs in their growth.

Making

	£.	s.	d.
Making the bank	0	0	9
Quick-ſets eighty in a rope	0	0	9
Planting and dunging	0	0	2
Two dead hedges	0	2	5
(*N. B.* One waggon-load of writh will coſt 17s. 6d. and make about fifteen rope of ſingle hedge.)			
Making two dead fences	0	0	5
	0	4	6
Weeding plants for three years	0	0	3
Two additional dead hedges	0	2	10
	*0	7	7

N. B. The old wood will pay for ſundry repairs of the hedges injured by ſportſmen, &c.

In many counties it is the cuſtom to plant the quick in the face of the bank, and where wood for fencing is ſcarce, this method generally prevails.

Having now ſtated the different expence of a *mortar* and *liſt wall*, a *dry wall*, and alſo of raiſing a bank, and planting *quick*, it may not be amiſs to enumerate the comparative advantages and diſadvantages.

A wall is certainly the beſt fence for a given number of years. It covers leſs ground, it does leſs injury to the crops; if part by accident fall, it is eaſily repaired, cattle are kept more ſecure, ſportſmen are excluded. Theſe are the prin-

* The price of hazel coppice-wood and labour being conſiderably advanced, one ſhilling per rope muſt be added to this eſtimate. J.B.

cipal advantages, which in a great degree compenſate for the want of ſhelter and durability, and in moſt inſtances where ſtone can eaſily be got, and I think in all caſes where land is poor and expoſed to violent and deſtructive winds, it is the preferable fence.

On the other hand, quickſet hedges are beautiful to the eye; and if the climate, quality, and depth of ſoil, be ſuch as to throw out a vigorous ſhoot, and minute attention be paid to them in their infancy, they are leſs expenſive, and at the end of fourteen years will yield a ſufficient produce when cut down and plaſhed to pay all the expences incurred by the firſt making; and this cutting may be repeated every twelve or fourteen years without injury to the ſtocks. And here let me remind the farmer, that the proper time to cut and plaſh his hedges is, when the ground is to be ploughed, or if it be paſture, when the crop is to ſtand for hay; for cattle are very fond of the young branches, and by cropping them in the ſummer, will greatly injure the ſhoots.

But may not theſe two modes be ſo combined as to reap the advantage of both, that is, by making both a wall and a hedge? To this there can be no objection but the expence.

A dry ſtone-wall, four feet and half high, with ſix inches turf on the top, may be built on a ſimilar calculation with the foregoing, for ſix ſhillings per rope; and a low bank may be raiſed under it, on which quick may be planted. The growth, encouraged by ſhelter and warmth, will be rapid, and in four or five years time the wall may be taken away, and the ſtones converted into lime, or uſed on the publick roads, or for any other purpoſe. If this fence be made at the time when the land is converted into tillage, one dead fence to ſecure the plants on the inſide will be ſufficient, and that not an expenſive one.

The DISDURSEMENT *will be as follows:*

	£.	s.	d.
Building four feet and half of wall, ſtones and halling included	0	6	0
Turfing	0	0	2
Making bank and planting quick	0	0	4
Sets	0	0	8
One dead fence on the inſide	0	1	2
Weeding	0	0	2
	0	8	6
From which deduct the value of the ſtones at three-pence per cart-load	0	1	6
	*0	7	0

This I think a more eligible mode of fencing than either of the preceding, but ſtill there is another method which I prefer to all others in ſituations ſuch as that on which we are now treating.

This is making a bank three feet high, and planting on it *full grown ſloe* or *black-thorn*, ſetting them very thick, and cutting off the top to the height of three feet. The principal objection that can be ſtarted to this plant is, the running of its roots, which are ſaid to obſtruct the plough; but I can declare from long experience, that in banks ſuch as I deſcribe, accompanied with ditches two feet and half deep, no ſuch inconvenience has occurred. In moſt countries great quantities of this black-thorn might be found in coppices, borders of fields, commons, &c. and the owners will

* The ſame addition as before for advance of wages, &c.

be

be obliged by your digging them up; one good waggon-load of theſe plants will be ſufficient for twelve rope, and the coſt may be thus eſtimated:

	£.	s.	d.	
Making the bank	0	1	0	per rope.
Digging up and planting	0	1	6	ditto
Carriage of plants	0	0	9	
	0	3	3	

N. B. The price of carriage muſt vary according to the diſtance.

It may be adviſeable to mix with the black-thorn ſome hazel or withy ſtocks, together with the *large brier*, and to lay the loppings of the ſloe along the ſummit of the bank, ſecuring them by ſmall ſtakes ſo as to prevent ſheep from making a paſſage through the ſtocks. This fence requires but little repair; the ſloe will throw out ſo many ſhoots from its root, and the briar will ſo intwine its branches with the hedge, as to make it in a few years impervious to cattle of any kind. And though it cannot be expected to grow to a great height, yet it will be as cloſe and thick as the farmer can wiſh; and, together with the bank, will conſtitute excellent ſhelter and defence, *and withal* will be made at the leaſt poſſible expence.

After incloſing and dividing, the next objects of attention are ſuitable buildings, ſuch as a dwelling-houſe, barns, ſtables, ſtallings, &c. &c. Theſe are placed as near as poſſible to the centre of the farm, and though not elegant, are for the moſt part uſeful and commodious. They are built with ſtone, and generally thatched, the inconvenience of which is ſeverely felt; for the moiſture of the air, and the powerful effects

effects of the wind, render frequent repairs neceſſary.* A roof will require coating every eight or ten years; it is a harbour for vermin; is more dangerous in reſpect to fire, and, every thing conſidered, is more expenſive than tile, to encourage the uſe of which, our rulers would do well, were they to repeal the preſent tax upon that article, (or at leaſt to allow a drawback on ſuch as may be uſed on farm-houſes, barns, &c.) for I think it would not be difficult to prove that the injury done to the kingdom in reſpect to its agriculture, is five times greater than the produce of the tax. Exempt from duty, the uſe of tile muſt, I think, be general, by which means all the ſtraw would be devoted to the purpoſe of ſubſiſtence for cattle, or manure. The expence of a comfortable farm-houſe, with its neceſſary appendages, is eſtimated at about two hundred and fifty pounds. That of a barn, roomy enough for four threſhers, and capacious enough to hold twenty or thirty loads of corn, one hundred and fifty pounds. Stables, ſtalling, pig-ſtyes, &c. one hundred and fifty pounds more, making in the whole five hundred and fifty pounds. This expenditure will be ſufficient for a farm of five hundred acres. The practice lately introduced of placing the barns on a declivity cannot be too much commended; a warm and commodious ſtall for oxen, covered by one roof, is thereby gained. The barn-floor, thus elevated, is rendered more durable, and leſs ſubject to vermin; the corn is kept more dry and ſweet than on a ground floor; nor can it ſlip through the barn-floor without diſcovery; and I know of no poſſible inconvenience that can accompany this plan. Barns, ſuch as theſe, are placed

* Repair (if poſſible) thatched buildings in the ſummer ſeaſon. A covering put on then, will laſt years longer than one put on in the winter. J.B.

with

with a ſouth-eaſt aſpect, and the arches of the ſtalling front that way. Annexed thereto is a capacious yard, with proper cribs for hay and ſtraw, where the animals feed, and retire at their pleaſure to their comfortable lodging under the barn.

Nothing is neceſſary to complete the farm-yard but a pond or reſervoir of water; and as the ſituation is on a deſcent, ſuch pond is ſoon filled by the common current of rain, or it may be ſupplied by ſhoots from the roof of the barn.

On one farm, ſituate in the pariſh of Compton-Martin, the proprietor has made a ſemicircular farm-yard, and by building a wall on the *outſide*, and round pillars on the *inſide*, at the diſtance of about fourteen feet from each other, and covering the ſame with ſtrong lugs or poles, has made an excellent *ſtaddle* for corn. To ſecure it from vermin, he has placed a row of flat ſtones at a foot diſtance from the top both of the wall and pillars *inſide* and *outſide*. This row of ſtones projects about eight inches, and ſhuts ſo cloſe together that no vermin can gain acceſs to the corn. On this ſtaddle (as it is here called) he places the whole of his wheat crop, except that portion which he intends to threſh for ſeed; for the moiſture of the air in winter renders the wheat on theſe hills ſo damp and cold, that the ſale at that ſeaſon is very ſlack, and ſhould in moſt inſtances be avoided. In all my farming excurſions, I never ſaw a more comfortable covering for cattle, nor a better foundation for a corn mow; and under the ſuppoſition of its being threſhed in the ſummer months, no poſſible inconvenience can attend it, for the ſtaddle is cleared, and ready before harveſt to take another burthen.

POOLS.

The next, and not the leaſt important appendage of theſe farms, are *pools* or *reſervoirs of water*; for on hills ſo elevated few ſprings can be expected. Nothing more ſtrongly verifies the truth of the old adage, "Neceſſity is the mother of invention," than the ſkill exhibited by the maſons of this diſtrict in buildings of this nature. Scarcely ever do theſe pools let through the water, and the coſt, ſuppoſing it to be of the following dimenſions, 40 feet long, 16 wide, and 6 feet deep in the middle, may be thus ſtated:

	£.	s.	d.
Digging out for foundation	2	2	0
N. B. In moſt inſtances this will furniſh a ſufficient quantity of ſtone for the building.			
Maſon's labour	10	10	0
Three hundred buſhels of lime	3	0	0
Ten loads of clay and carriage	1	0	0
Eight loads of coal-aſhes and carriage	1	8	0
	*18	0	0

A pool of theſe dimenſions, if properly ſituated, will ſupply eighty or one hundred acres with a ſufficiency of water for the ſtock throughout the year; and if well made, may be kept in repair for ſix-pence a year.

* Some cautious people go to a conſiderable diſtance for lime made from the white-lyas ſtone, which is certainly a ſtronger cement under water than the lime burnt on theſe hills. In this caſe, an additional expence is incurred.

LIMEKILNS.

As *Lime* is the grand manure of this diſtrict, by which the improvements of cultivation are in a great meaſure brought about, kilns for burning it are numerous, and generally thought well conſtructed; their form is that of a French bottle, the height ſeventeen feet, the length of the neck, in which the calcination is wholly effected, ſeven feet; its diameter four feet, and the diameter of the belly in the largeſt part twelve feet. They are built on the ſide of a hill, by which means the top is on a level with the adjacent *rock*, and the coſt is as follows:

	£.	s.	d.
Digging out the concavity	1	1	0
(This will furniſh ſtone for the building)			
Building	4	4	0
Lime and aſhes	1	15	0
Building a ſhelf-houſe for the kiln to depoſit the lime, and covering the ſame	3	0	0
*£.	10	0	0

In ſuch a kiln, may be burnt four hundred and eighty buſhels of lime per week, and this will conſume fifteen quarters, or one hundred and twenty buſhels of refuſe coal, ſuch as is not commonly uſed for any houſhold purpoſes. The coal coſts at the pit two-pence per buſhel, and the diſ-

* In conſequence of the advance of lime, coal, and wages, lime-kilns now coſt about thirteen pounds; and from the ſame cauſes, the coſt of the lime will be advanced to ſixteen-pence per quarter.

J. B. 1797.

tance

tance being ſix miles, the carriage is three-pence, the prime coſt of the lime therefore is fourteen-pence per quarter, as the following calculation ſhews;

Weekly expence.				*Weekly produce.*		
Fifteen quarters of coal, at 3s. 4d.	2	10	0	Sixty quarters, at 1s. 2d.	3	10	0
Limeburner 4d. per quarter, digging ſtones and burning	1	0	0				
£.	3	10	0	£.	3	10	0

The lime produced by one of theſe kilns will amply manure three acres per week; and I leave my readers to determine, whether kilns of this conſtruction are or are not to be preferred to thoſe in ſhape of an inverted cone. The largeneſs of the ſurface in the laſt-mentioned muſt, I ſhould think, require coal of a better quality, and conſume a greater quantity.

ROADS.

Laſtly, let us take a view of the publick Roads. They are left forty feet wide, and are ſtoned twelve feet.

It is uſual to ſtone theſe roads one foot thick in the middle, and nine inches at the ſides, making thereby a gentle curve.

	s.	d.	
Firſt forming —	0	6	per rope of 20 feet.
Digging eight loads of ſtone (25 cwt. each) ———	2	0	
Wheeling or halling ditto —	3	0	
Breaking ditto ——	3	0	
	8	6*	

Note, The expence of halling muſt vary according to the diſtance of the ſtone.

MODE OF CULTIVATION.

The incloſure being now finiſhed, buildings erected, pools made, and publick roads formed, let us now take a ſurvey of the expence of cultivating theſe lands, under the following heads: ploughing, manuring, cropping, and harveſting. In this, I ſhall endeavour to draw information from reaſon and experience, and ſhew upon what grounds the practices are founded, ſo that my readers may then take or refuſe them, according to their own judgments.

I have before ſtated, that the ſoil of Mendip hills is a fine mellow mould, intermixed occaſionally with leſs fertile ingredients, ſuch as ſtone, gravel, clay, and the like; and according as theſe are greater or leſſer in quantity, the ſoil is worſe or better. In all caſes the huſbandman may diſtin-

* I muſt here reprobate the narrow policy of which I have myſelf been too guilty, viz. that of ſtoning the roads only twelve feet wide. In conſequence of its narrowneſs, *one track only* is formed by wheel-carriages, and the repairs are endleſs. On all accounts, experience directs me to recommend ſixteen feet at leaſt. J. B. 1797.

guiſh

guiſh the general nature of the ſoil, by its aſpect on the ſurface, or by the produce thereof. Where the fern grows in great luxuriance, there he is ſure to find deep good land; but weak low furze, ruſhes, or white graſs, are ſymptoms of poverty.

The object to which we now proceed in our diſquiſition may be deemed the moſt important and intereſting, being nothing leſs than the proceſs by which this comparatively barren ſoil is converted into fertile and productive land: and on a nearer inſpection, it will probably be allowed, that few inſtances can be adduced of attempts more ſucceſsful to individuals, or more beneficial to community. This ſoil does not pour forth its vegetable productions ſpontaneouſly, but its qualities and ſtrength are ſuch as to produce great returns, if properly cultivated and manured; and were an ancient inhabitant of theſe regions to return to life, he would be at a loſs to know the name of this apparently new country.

The months of September or October are the beſt to commence the tillage. The inſtrument made uſe of, is a ſtrong foot plough, without wheels, coſt two guineas. The breadth of the plit about ten, and the depth four inches. Four horſes, or ſix oxen, will turn about three-fourths of an acre in eight hours. A man is employed to go after the plough with a ſpade, to repair balks, to dig up ſtones, and to lay the plit flat: this ploughing may be valued from twelve to twenty ſhillings per acre. In this ſtate it remains to be mellowed by the winter froſts till March, when black oats are ſown, after the rate of ſix or ſeven buſhels per acre, and harrowed in by four turns of the harrow on the ſame ground. A few farmers, previous to this ſowing, have lately adopted the plan of *hacking* the ſurface, at the expence of five ſhillings per acre: by which means leſs ſeed will do, and the

ſame

ſame is more regularly diſtributed and better covered; beſide, the hacking and harrowing is not more expenſive than the troubleſome dragging before-mentioned: the expence of either of theſe operations may be eſtimated at ſeven ſhillings per acre.

After this, it is rolled at an expence of one ſhilling per acre. Nothing more is done till harveſt, and the average produce may be ſet at twenty-five buſhels per acre; the ſtraw of which will pay for harveſting and threſhing (that is, about eight ſhillings per acre.)

Soon after harveſt, or indeed at any part of the winter, the ground is croſs-ploughed with the *double-furrow* plough, value ſix ſhillings per acre. Harrowed in March, value two ſhillings; and in April the liming is begun. Four horſes and two men, with two carts holding thirty-two buſhels of lime each, (if the kiln be not at a greater diſtance than one mile) will cover one acre and half per day, at the rate of one hundred and ſixty buſhels per acre.

The lime is depoſited in heaps of one buſhel, at the diſtance of ſixteen feet and half every way. Coſt per acre (value of lime included) thirty-five ſhillings.

Covering theſe heaps with earth, and afterwards ſpreading them, (which ſhould be done as ſoon as the lime is diſſolved) are worth one ſhilling and ſix-pence per acre.

After this the ground is well harrowed, two ſhillings per acre; then ploughed very thin or raftered, five ſhillings; harrowed again two ſhillings, and in this ſtate remains for the ſeed earth. It is found highly advantageous to expedite the liming, and to finiſh all the work previous to the ſeed earth by the middle of July; ſo that all the ſtock, ſuch as cows, ſheep, horſes, &c. may have free acceſs to the fallow, or may be frequently driven over it, for the purpoſe of making it cloſe and compact. The latter end of September,

or

or beginning of the month of October, is the time for ſowing; and this is done in two ways, ſome ſowing under furrow, others harrow in the ſeed; the latter I think preferable, as the uncorrupted ſward, furze, &c. are by harrowing brought to the ſurface, and are a great defence to the infant plant during winter; whereas, if buried, they keep the ground hollow, and expoſe the roots to injury. Which ever way it be done, the laſt ploughing, ſowing, and harrowing, will coſt about ſeven ſhillings per acre, to which add two buſhels and half of ſeed, value fifteen ſhillings, and the whole expence has been enumerated. No weeding is neceſſary, nor is there any other diſburſement, ſave rolling in April, which ſhould be performed with a very heavy roller, at the expence of two ſhillings per acre.

Let us now recapitulate the expences, and ſtate the average produce per acre.

Firſt year. *Dr.*	£.	s.	d.	*Firſt year.* *Cr.*	£.	s.	d.
To firſt ploughing	0	16	0				
To hacking and ſowing oats	0	7	0				
To ſix buſhels of ſeed	0	15	0	By 25 buſhels			
To rolling	0	1	0	oats 2s. 6d.	3	2	6
To one year's rent	0	8	0				
Second year.				*Second year.*			
To croſs ploughing	0	6	0	By 25 buſhels			
To harrowing	0	2	0	wheat 6s.	7	10	0
To liming (160 buſhels per acre)	1	15	0				
To covering and ſpreading	0	1	6				
To harrowing	0	2	0				
To ploughing	0	5	0				
To harrowing	0	2	0				
To laſt ploughing, ſowing, and harrowing	0	7	0				
To two buſhels and half of ſeed	0	15	0				
To rolling	0	2	0				
To two years rent	0	16	0				
	7	0	6				
Profit	3	12	0				
	10	12	6		10	12	6

N. B. The ſtraw in both inſtances will pay for reaping, harveſting, and threſhing.

HARVESTING AND THRESHING.

The reaping of wheat is generally performed by the acre; and, as the ripening is a fortnight later on theſe hills than in the vale, there is no want of hands. The price from five to ſeven ſhillings and ſix-pence per acre, including cutting, binding, and mowing. It is always hand-griped as it is called, that is, collected within the palm of the hand before the hook or ſickle is applied. All the corn, wheat, barley, and oats, are bound into ſheaves and mowed in the field. The price for barley and oats from three to five ſhillings; beſides theſe prices, the men are allowed for wheat two gallons of beer, and for barley and oats one gallon and half, per acre.

In ſituations ſubject to ſudden and violent rain, this cuſtom of mowing in the field cannot be condemned, as, in reſpect to wheat, the day's cutting is ſecured every evening, and the lent corn can be put together and ſecured much ſooner than in the common method.

The principal objections are, the bringing mice with the ſheaves into the barn, or large mow; and the want of ſufficient dryneſs in the corn for winter threſhing.

The men of this country are very dextrous in making theſe mows, ſo as to prevent rain from injuring the corn; and they frequently remain five or ſix weeks in the field without ſuffering any damage.

Wheat is ſeldom threſhed with the ſtraw, but the ears are cut off, and the ſtraw bound in ſheaves tied very tight; the circumference of the ſheaf at the bond ſhould be ſix feet; this coſts five-pence per ſheaf, including the threſhing of the ears. A good acre of wheat will produce three dozen

ſheaves, value eight ſhillings and ſix-pence per dozen,* and each ſheaf ſhould weigh fifty-ſix pounds. By this method, the firmneſs of the ſtalk is preſerved, and rendered more valuable for the purpoſes of thatching buildings,† &c.

Barley and oats are threſhed by the quarter. Price from one ſhilling to one ſhilling and ſix-pence per quarter.

A good acre of oats will produce two waggon-loads of ſtraw.

The land is now conſidered in its higheſt ſtate of ſtrength and vigour; and it is thought by moſt farmers, that every ſucceeding year reduces its value; nor can this be wondered at, when the ſubſequent courſe of cropping is ſtated.

It is no unuſual thing to have three or four ſucceſſive crops of corn, nay, ſometimes five or ſix without an intervening fallow, or fallow crop; greateſt part of the ſtraw is ſold, nor is the land ſown with artificial graſſes till it is no longer able to bear corn.

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* Ear-pitching is the provincial term for this management, and the ſheaves thus prepared are called reed-ſheaves. They are in general uſe for the purpoſe of thatching, for which, indeed, they are ſolely intended. The practice is not confined to Mendip, but is in common uſe through great part of the diſtrict. The workmen are very dextrous in making, and the thatchers no leſs expert in uſing it; and at the ſame time that it makes a covering more durable than any other of ſtraw, it is of ſuch ſuperior neatneſs, that the thatched buildings of this neighbourhood excite the admiration of many ſtrangers coming from other parts where this practice is not known.

A dozen ſheaves will cover a ſquare of one hundred feet. Price of laying them up (new work) three ſhillings per dozen. A ſecond or any ſucceeding coat, two ſhillings per dozen. Mending, four-pence per ſheaf. R. P.

† Some people diſpute this point, and ſay, that the hollow tube of the wheat-ſtraw admits the air, and that its decay is thereby accelerated, and aſſert (from experience) that *threſhed* ſtraw is more durable than *unthreſhed*. J. B.

This

This mode of treatment, together with the coldneſs of the climate, has hitherto operated as an effectual bar to the ſettlement of opulent and more enlightened farmers; but I am well perſuaded, than if even one of that deſcription were to ſettle here on a farm of a proper ſize, viz. five or ſix hundred acres, he would, according to the farmer's phraſe, "find himſelf at home," and his example would ſoon be followed by many others.

Cabbages, turnips, potatoes, carrots, parſnips, vetches, flax, oats, clover, and all artificial graſſes, may be ſown in the higheſt abundance and perfection.

The land is never glutted with rain, nor ſubject to drought, and the fogs (of which ſo much is ſaid) are prevalent only in the winter ſeaſon.*

It cannot be denied, but that a cold wet ſummer, ſuch as that of 1792, is peculiarly unfavourable to the ripening of corn on lands of ſuch elevation, but in ſummers like the laſt, few countries could vie with it.

Though I am no advocate for farms of an *exceſſive* extent, yet I think, that on ſoils, and in ſituations ſuch as Mendip hills, they ſhould not be leſs than four or five hundred acres. I mean ſufficient to keep a flock of ſheep for the purpoſes of *folding*, which ſhould be unremittingly purſued through both winter and ſummer months. On the fallows in the ſummer, and on the graſs land or in the farmyard in the winter. A wether flock would be beſt calculated for the purpoſe; and it is a matter of doubt with many judicious farmers, whether ſheep of that kind are not equally profitable with the breeding ſtock, even in ſituations more

* The inconvenience of fogs is greatly abated by the incloſing and draining of the low moor lands in the vicinity of Mendip.

mild and temperate. By ſuch a ſyſtem of management, one hundred acres might be manured every year with the fold, which, joined with occaſional liming and the application of the farm-yard dung, would keep the land in a progreſſive ſtate of improvement, and at the leaſt poſſible expence.

DOUBLE-FURROW PLOUGH.

Formerly the ploughs uſed here were the moſt aukward, and ill-contrived, that could be conceived, but they have in a great meaſure given place to the *double-furrowed* plough, which was introduced to this neighbourhood by a ſpeculative man who turned farmer on theſe lands, diſregarded and deſpiſed by all practical huſbandmen.

Though common farmers are for the moſt part backward in adopting new plans, yet I never knew any *valuable* diſcovery that they did not ſooner or later fall into. So it happened with the double ploughs. For ten years, did the perſon above alluded to uſe this inſtrument, and was conſtant in ſeaſon, and out of ſeaſon, in recommending it to others; (for they who have a true taſte for agriculture, enjoy themſelves in the communication of every uſeful diſcovery) but all in vain, the more warm he was in enforcing its utility, the more reluctant were the common renters in adopting the uſe of it; and in all probability it would have remained to the preſent day, undiſtinguiſhed for its ſuperiority, had not the ſame been manifeſted at the different trials of ploughs exhibited under the direction of the Bath Agricultural Society.

At preſent, ſcarce any other plough is uſed after the firſt breaking; and, I believe, I may truly aſſert, that in compa-

riſon

riſon with the old ploughs of the diſtrict, no leſs than fifty pounds per year is ſaved on a farm of five hundred acres. Another mode of management has been for many years paſt introduced by the perſon before alluded to, namely, ploughing by the *acre* inſtead of the *day*.

The contract is thus conducted; the maſter finds oxen and food, and the ploughman labour and driver. The latter is alſo bound to attend the cattle at all times, even when debarred from work by rain, ſnow, froſt, or any other cauſe. The price is two ſhillings and two-pence per acre for the ploughing of the rough Mendip lands when firſt incloſed, (this is done with a ſingle plough) and one ſhilling and two-pence for all other ploughings of every deſcription, with the double plough.

By this ſyſtem of management he has annually had more ground ploughed by *one* team, than his neighbours by *two*; and it has been no unuſual thing for his man and boy to earn regularly per week ſeventeen ſhillings and ſix-pence, that is, for two acres and half per day on an average. Nay, his man has repeatedly ploughed with ſix oxen (in yokes) twenty acres of land, ſtatute meaſure, in forty-eight hours; I mean in ſix ſucceſſive days, reckoning eight hours per day: the breadth of the plit according to agreement not exceeding nine inches, nor the depth leſs than four inches, (when the ſoil was deep enough to admit thereof.)

Let us pauſe here, and ſeriouſly conſider the advantages of *contract* in compariſon with *daily* labour.* The Engliſh labourer

* Many ſenſible and well-meaning men have objected to *contract labour*, under the idea of its being injurious to the health and longevity of the labourer;—but though I have been in the habit of letting my work by the job or taſk for twenty years paſt, I never perceived any ill effect on the health or ſtrength of my workmen. Where great exertion

labourer is naturally diſpoſed to vigorous exertion, if encouraged thereto, either by an increaſe of wages, or by the exhilarating influence of good cheer.

Do we not ſee in times of harveſt a degree of activity exhibited, unknown at other times of the year? and this at a ſeaſon when the heat of the weather naturally induces fatigue.

Do not the manufacturer and artiſan, almoſt of every deſcription, have recourſe to contract labour? And though their workmen earn from ten to thirty ſhillings per week, do they not find their account in ſo doing, from the emulation which it excites, and the perfection of workmanſhip which it produces?

Muſt it not be acknowledged, that in thoſe countries where *daily labour* is the prevailing mode, a ſlow and indolent habit is generated, which neither promiſes nor threats can entirely overcome, to the great injury of the commonwealth, as well as of the farmer. Suppoſe we allow the average rate of daily labour to be ſixteen-pence, and admit that by contract, men will be excited to earn twenty-pence, what an addition of uſeful labour would be created, taking it in an aggregate point of view!

But I muſt not enter too widely into this field of diſcuſſion, and ſhall only add, that in reſpect to the operation of ploughing, the method now ſuggeſted can only be ſubject to *two* objections.

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exertion and exceſs of wages are forerunners to drunkenneſs and debauchery, ſuch conſequences may follow;—but no practical man will deny, that where daily labour prevails, a conſiderable portion of the day is waſted in ſauntering, holding tales, and in a ſluggiſh uſe of thoſe limbs which are capable of more lively motion.

At any rate, *ploughing by the acre* cannot poſſibly be attended with any injury to the health or ſtrength of the ploughman.

Firſt,

Firſt, the poſſibility of cattle being injured by too great exertion; and ſecondly, imperfection in the execution.

Both theſe are eaſily obviated by ſtating, that the eye of the maſter may ſee, and his judgment may direct, ſo as to preclude the poſſibility of impoſition, without detection.

Diſpatch at particular ſeaſons of the year may be conſidered as invaluable, particularly in reſpect to ſpring and ſummer crops. A dry and favourable ſeaſon for ſowing occurs in March; by contract labour, and improved inſtruments, you are enabled to plough and ſow *double* the uſual quantity. The increaſed produce in compariſon with a ſowing in April, may be fairly calculated at more than the rent of the land, excluſive of the comparative cheapneſs. The ſame argument will hold good, in reſpect to flax, hemp, turnips, potatoes, cabbages, ſummer-fallows, &c. &c.

COMPARISON BETWEEN HORSES AND OXEN.

It is the general opinion of farmers in this diſtrict, that oxen are preferable to horſes, for the purpoſe of ploughing, but for harrowing and all other purpoſes, the contrary.

The expences of keeping a team of each for the purpoſes of farming may be thus ſtated, and it will appear, that the ſuperiority of oxen is not ſo great as ſome ſanguine men have ſtated.

HORSE TEAM, (4)

The firſt coſt, including harneſs, cannot be eſtimated at leſs than one hundred pounds.

	£.	s.	d.
To 30 weeks keeping at hay, 12 tons at 40s.	24	0	0
Corn throughout the year	30	0	0
To twenty-two weeks keeping at graſs, at 3s. 6d. each horſe	15	8	0
Repairs of harneſs	2	12	0
Farrier and ſhoeing	4	0	0
	£.76	0	0

OX TEAM, (6)

The firſt coſt of theſe, ſuppoſing them to be the beſt North-Devon breed, and four or five years old, yokes, bows, and chains included,* 70l.

To twenty-ſix weeks at hay, twenty-four tons, at 40s.	48	0	0
Twenty-ſix ditto at graſs, 2s. 6d. per week each ox	19	10	0
Repairs of yokes and bows, and chains	0	10	0
	£.68	0	0

Some farmers think that three horſes are equal in exertion to ſix oxen; if that be admitted, the expences of the horſe team will be leſs than thoſe of the oxen.

If an accident ſhould happen whereby a horſe is lamed, the value is much more leſſened than in the caſe of an ox;

* Oxen are now (January 1797) fifty per cent. dearer. J. B.

but

but in all other reſpects they ſtand on equal ground; for horſes, if purchaſed at the age of four or five years, are improving in value for two or three years, as much or more than oxen. And every intelligent farmer muſt be ſenſible of the folly of keeping a horſe after he is ſix or ſeven years old; they ſhould then be transferred to common carriers, &c. and agriculture ſhould only be the medium whereby a young horſe becomes, by gentle labour, inured to more ſevere diſcipline.

LIMING.

Having already ſtated that lime is the great article of modern improvement of theſe hills, I ſhall only add, that inſtances might be produced of lands letting at this time for thirty ſhillings per acre, which forty years ago were not worth four ſhillings; and the beginning of all theſe improvements has been by lime, whereby the acidity of the ſoil, impregnated with mineral exhalation, has been corrected, and crops raiſed on them as good as thoſe on improved fields; and it is no leſs wonderful than true, that thirty cart-loads of rotten dung per acre, *previous to liming*, have had no ſenſible effect; but after the land has been once limed, the operation of dung is as perceptible here as on other lands. Surely this circumſtance will prove, that theſe hills come under the deſcription of barren land, as referred to in the ſtatute of Edward VI. and as ſuch be exempt from the payment of tithes for ſeven years. §

Before we leave the ſubject of liming, it may be right to inform my readers, that ſome have dreſſed their old paſtures

§ It is much to be lamented, that all ambiguity in that act is not done away by a new bill explanatory of its meaning.

with

with hot lime, by which the moſs has been deſtroyed, and a fine herbage produced, highly grateful to the palate of all ſorts of ſtock. The lime, after the rate of one hundred and ſixty buſhels per acre, is put on the land ſoon after it is mown, and its effects are very durable; being perceptible for fifteen or twenty years, and it quite alters the nature of the coarſe ſour graſs, to which old layers are very ſubject.

I confeſs I am ignorant of the *whole* cauſe, whereby lime produces ſuch happy effects; but, however unknown the cauſe, all agree that it is the moſt cheap and efficacious manure that the huſbandman on theſe hills can have recourſe to.

Here ends the detail of the Mendip huſbandry.

CHAPTER VII

ARABLE LAND.

AS corn is but little attended to, in the greateſt part of this diſtrict, the mode of tillage is very defective. The ſtubbles are ſcarce ever ploughed till near Chriſtmas; and as it is the common practice to have at leaſt two crops of lent corn after wheat, the ground is ſeldom in a proper ſtate to receive graſs ſeeds.

Few turnips* are grown; and the land intended for ſummer fallow, preparatory to wheat, is not ploughed till the ſowing of the ſpring-corn is finiſhed,—from theſe cauſes the land abounds with *couch-graſs*, *coltsfoot*, &c. Nor can we recommend the

ROTATION OF CROPS,

On the Clay, it is

1ſt. Beans
2d. Summer Fallow
3d. Wheat
4th. Oats
5th. Oats and graſs-ſeeds

or,

1ſt. Beans
2d. Wheat
3d. Winter-fallow and oats, with artificial ſeeds
N. B. This will do tolerably well.

Or, 1ſt. Teazles
2d. Wheat
3d. Beans
4th. Oats.

This is a pretty good courſe.

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* An acre of good turnips will (between the months of November and March) maintain one hundred ſheep ſix weeks, and an acre of cabbages two months. An acre alſo of good turnip-rooted cabbages, or an acre of Swediſh turnip, will maintain one hundred ſheep through the trying month of March.

It is ſuppoſed that a little hay be given with the roots.

On the Red Earth,

1ſt. Oats on the lay
2d. Summer-fallow
3d. Wheat
4th. Oats
5th. Oats
6th. Oats and graſs-ſeed

Sometimes the graſs ſeeds are ſown in the ſecond crop of oats after a winter fallow.

On the Stone-Braſh,

(That is, the land abounding with marl.)

1ſt. Wheat
2d. Wheat
3d. Wheat
4th. Barley and clover
5th. Clover.

Of this ſoil and its management I ſhall ſpeak more fully hereafter.

Fallowing is generally practiſed in all thoſe ſoils; for as turnips are little known, the farmers are obliged to have occaſional recourſe thereunto to clean their land, made foul by ſucceſſive corn crops.

CROPS COMMONLY CULTIVATED.

WHEAT generally ſown after a ſummer fallow, ſometimes after beans; but in conſequence of inattention to the hoeing and cleaning the bean crops, the wheat is ſo choaked with weeds, that this rotation is on the decline. It is the general practice to manure for wheat either with lime, dung, or the ſheep-fold.

The laſt produces the beſt corn. Many ſorts of wheat are ſown, and each has its advocates. In the vales, and on ſtrong clay-land, the *cone* or *bearded* wheat takes the lead;—next to that, the *white and red hoar* or *velvet wheat*—the *brazil*—the *white Holland*, and *red lammas*. On the hills, and on all expoſed ſituations, the *red ſtraw*, which differs from

from the red lammas, inaſmuch as every bloſſom is of a purple colour. Moſt attentive farmers prepare their ſeed by ſteeping it in water, mixed with a ſufficient quantity of ſalt or brine to ſwim an egg, ſtirring it well and ſkimming off the light and defective grains, and afterwards drying it with hot lime; this is found a never-failing preventative of the ſmut. The ſeed is always ſown broadcaſt, after the rate of two and half or three Wincheſter buſhels per acre, and moſt commonly under furrow, on ſix-feet ridges. It is weeded in the ſpring, and but ſeldom has any top-dreſſing.

The method of harrowing and threſhing has been already explained. The produce varies from twelve to thirty buſhels per acre.

BARLEY.—Excepting the ſtone-braſh or marl ſoil, there is very little land in this diſtrict favourable to the culture of barley.

OATS may be conſidered as the principal ſpring crop, and, though ſown on a corn ſtubble, is generally productive. The quantity of ſeed ſix buſhels.

The time of ſowing March and April,* and the produce from thirty to fifty buſhels per acre.

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* Few farmers agree in opinion reſpecting early or late ſowing, and perhaps no fixed time can with propriety be eſtabliſhed. The ſucceſs, or otherwiſe, depends ſo much on fortuitous circumſtances, ſuch as, the wetneſs or dryneſs of the ſeaſon, the temperature of the air, both at the time of ſowing and after, that what is ſucceſsful one year is quite the contrary the next.

The following rules may, I think, be ſafely followed: not to ſow wheat before the month of September, nor later than the beginning of November.

Not to ſow till the ground is perfectly moiſtened, and made cloſe and firm by rain.

After the middle of February, whenever the land devoted to ſpring crops is dry and healthy, begin planting beans, and ſowing oats; and under the ſame circumſtances let all your barley be in the ground before the middle of April. J. B.

RYE and BUCK-WHEAT ſcarcely known.

BEANS and PEASE are ſometimes ſown broadcaſt, and ſometimes planted; the latter is conſidered as the beſt method.

VETCHES are not cultivated ſo much as they ought.

TEASELS.

In the pariſhes of Wrington, Blagdon, Ubly, Compton-Martin, and Harptry, teaſels are much cultivated. The head of this plant, which is compoſed of well-turned vegetable hooks, is uſed in dreſſing of cloth; and the manufacturers of this county and Wilts are, for the moſt part, ſupplied from theſe pariſhes. Large quantities are alſo ſent (by water conveyance from Briſtol) into Yorkſhire.

As this is a plant not generally known, I will deſcribe its culture.

The moſt favourable ſoil is a ſtrong rich clay, or what is generally denominated good wheat land.

Sometimes an old ley is broke up, and ſometimes a wheat-ſtubble; the ſeed is ſown, after the rate of two pecks per acre, in the month of April. During the ſummer the land is worked over three or four times with long narrow ſpades to deſtroy the weeds.

In the month of November, if the plants are too thick, they are drawn out to fill up vacancies, and the plants are ſet at a foot diſtance. If, after this thinning, too many plants remain, another field is prepared, into which they are tranſplanted; but thoſe plants which are never removed produce the beſt heads.

At the next ſpring and enſuing ſummer the land is worked over three or four times with the narrow ſpades, by which it is kept thorough clean, and the plants earthed up. This is called ſpeddling.

In

In the month of July the uppermoſt heads begin to bloſſom, and as ſoon as the bloſſom falls, they are ripe. The gathering is performed at three different times. A man, with a knife made for the purpoſe, cuts the heads which are ripe, and ties them up in handfuls. After a fortnight he goes over the ground again, and at a third cutting the buſineſs is compleated. On the day of cutting they are carried into a houſe, and if the air be clear, they are taken out daily and expoſed to the ſun till they are compleatly dry; but great care muſt be taken that no rain falls on them.

The crop is very hazardous. A wet ſeaſon rots them, particularly when there is much rain at the time of bloſſoming.

In the year 1792 there were few worth harveſting. The crop this year is but indifferent. When dry they are ſeparated into three different parts, called kings, middlings, and ſcrubs; and are, after that, made into packs, containing of kings nine thouſand heads, and of middling twenty thouſand. The ſcrubs are but of little value. The average price is forty ſhillings per pack; and ſometimes the produce is fifteen or ſixteen packs an acre, at other times a total blank. There is an amazing inequality in the produce of different plants; ſome ſtocks will ſend forth one hundred heads, others not more than three or four.

Should not great attention therefore be paid to the ſelection of ſeed, namely, by taking it from thoſe plants which appear to be moſt prolifick? This, however, is not done, but the ſeed is taken indiſcriminately from the whole crop.

As the goodneſs of the crop chiefly depends on the care taken to keep the land free from weeds, leaving the plants at proper diſtances, and earthing them up well; and as moſt of the common workmen will pay more attention to their own than to another perſon's intereſt, it frequently happens that

a partnerſhip

a partnerſhip is formed between maſter and man. The former finds ground and ploughing, and the latter ſeed and labour.

At harveſt the crop is divided, and each party takes a moiety.

The expence and produce of teaſels may be thus eſtimated per acre.

	£.	s.	d.
To two years' rent — — —	3	0	0
To ploughing — — —	0	15	0
To workmen's labour — — —	3	15	0
To making out in bundles, tying together, and teaſel-bands, 2s. per pack — —	0	14	0
	8	4	0
Profit	5	16	0
£	14	0	0

BY AVERAGE PRODUCE.

Seven packs, at 40s. — — —	14	0	0

Tithe and taxes excepted: the firſt of which is generally compounded for at 5s. per acre.

The working with the ſpade can only be done to advantage by the men accuſtomed to it, who are become, by habit, ſo dexterous in the uſe of this implement, that they will even thin out a crop of carrots.

The common hoe has been tried, and though in the hand of a compleat turnip-hoer, it was not found to anſwer.

After the crop wheat is ſown, on one ploughing, and ſeldom fails of a good produce; ſo that it may not be quite fair to charge the teaſels with two years' rent.

Few ſoils will bear frequent repetitions of this crop; and the farmer finds it his intereſt to devote newly broken-up land to this culture.

WOAD.

WOAD.

This is an article of cultivation, which, being important, as it relates to the woollen manufactory, muſt not be omitted. It is raiſed principally in the neighbourhood of Keynſham, and its quality is much eſteemed.

The farmers who raiſe it have an opinion that the pariſh of Keynſham is particularly favourable to the growth and perfection of it; but this is moſt likely a vulgar error, for experiments are atteſted of as good crops elſewhere. The ſoil muſt be ſtrong and good where it flouriſhes; it delights moſt in a deep fat loam, of a dark colour, which muſt have ſo much ſand as to admit of eaſy pulverization. As the excellence of woad conſiſts in its ſize, and the ſucculency of its leaf, it requires careful management as well as a rich ſoil. It is moſt commonly ſown on land freſh broken up, and on narrow ridges.

The firſt ploughing ſhould be againſt winter; the ſecond in the ſpring, when the ridges ſhould be formed; a third in April; and the laſt in May or June, juſt before the ſowing of the ſeed.* In the intervals of the ploughing, harrowing ſhould take place, to deſtroy all weeds.

The ſeed is ſometimes ſown by the beſt farmers in drills, for which purpoſe the ſurface ſhould be harrowed very fine and level. The plants, in a moiſt ſeaſon, appear in a fortnight, and in two or three weeks after are fit to hoe; they ſhould be hoed out clean, to the diſtance of about ſix inches at leaſt; ſome prefer a greater diſtance. In this neighbourhood, hand-weeding and thinning are generally uſed; and at the employ, women and children earn very high wages, eſpecially ſince a cotton manufactory has been introduced in the

* Frequently woad is ſown on *ley* ground, and on one ploughing, the ſurface being well harrowed.

pariſh. The ſucceſs of the crops depends much on the hoeing and weeding, ſo as to keep the ground freſh and clean. Thus managed, three or four crops or gatherings will be produced in ſucceſſion; but the firſt two are the beſt. The time of gathering is determined by the full growth of the leaves, and the firſt appearance of change of colour at the extremities; and this rule of courſe governs the ſucceeding crops.

The leaves are cut by hand, and gathered into baſkets by women and children, who carry them to a very deep large cart at the edge of the field. After two cuttings, the crop is ſuffered to go to ſeed for the next year, if ſeed be wanted; but if only one crop be taken, the ſeed will be the finer. When the pods turn of a dark colour, the ſeed is deemed ripe. The ſtalks ſhould then be reaped like wheat, and ſpread abroad; and if the weather be favourable, the ſeed will be fit for threſhing in four or five days.

When the green crops are carted home, the plant is thrown into a mill, conſtructed with a heavy iron ribbed roller, ſomething like that which is uſed for bruiſing bark and other ſubſtances; by this proceſs it is cut and bruiſed to a pulp. It is then laid in ſmall heaps, preſſed cloſe and ſmooth; and as the cruſt formed on the outſide cracks, it is cloſed again to preſerve the ſtrength of the ſubſtance. After lying about a fortnight in this ſtate, the heaps are broken up, the outſide worked into the maſs, and the whole formed by the hand, and ſometimes by wooden moulds, into oval balls, which are then dried on hurdles, under a ſhed expoſed to the ſun.

They turn black, or of a dark-brown, on the outſide, when well manufactured, and are valued in proportion to their ſpecific weight and a purpliſh caſt in the inſide. Thus they are ſold to the dyer; and it is ſcarcely neceſſary to add further,

further, that the uſe of this article in dying conſiſts in forming the ground of the indigo blue. The crop is generally a profitable one. The quantity per acre near a ton and half. The nett profit of courſe muſt be governed by the goodneſs and price of the article. But it ſeems, on an average, to be ſo lucrative a culture, that few farmers who can raiſe it ever diſcontinue the practice. It however exhauſts the land exceedingly, and more than two years crops muſt not in general be taken. To this crop ſucceed wheat and beans.*

POTATOES.

The rapid extenſion of the cultivation of this root can only be equalled by its general utility as a food both for man and beaſt. Thirty or forty years ago it was an extraordinary thing to ſee an acre of potatoes in one ſpot, and in one man's poſſeſſion; now there are many pariſhes in this diſtrict which can produce fifty acres. Nay, the writer of this report has grown thirty or forty acres per year, for a ſucceſſion of years; and once he had upwards of one hundred acres in one year.

* About forty years ago woad was cultivated in the neighbourhood of Mells; and there was in the pariſh a horſe-mill for grinding, and ſheds for drying it, the property of one HARVEY, who was more generally known by the appellation of the Woadman, than his own ſurname. Since his death it has been entirely diſcontinued.

From whence this man originally came is unknown, but moſt probably from ſome part where this plant was in uſual culture. Small plots of teazels, hops, &c. are ſometimes ſeen in villages far diſtant from thoſe parts where they are raiſed on a large ſcale. Hence one is led to obſerve the attachment which moſt men have to the local huſbandry of the diſtrict in which they are born and brought up, and the conſequent difficulty of introducing a new ſyſtem of agriculture into any place. The perſon migrating carries his attachments and habits with him, whilſt the neighbours, where he ſettles, are unconcerned, or perhaps contemptuous ſpectators of his proceedings; and though they ſee him flouriſh and do well, are ſcarce ever induced to relinquiſh their old ways and imitate his example. R. P.

The ſoil moſt favourable is a rich ſandy loam, newly broke up, and of a looſe texture. The ſorts cultivated are, the *kidney*, *white Scotch*, *magpie*, *rough red*, *purple*, and *ſilver-ſkin*. Rotten horſe-dung is conſidered as the beſt manure; next to that, hog's dung; and after that, all ſorts of farm-yard dung.

Lime, marl, ſoaper's aſhes, or rags, make the potatoes ſcabby. The ſeaſon of planting is April or May, and the quantity planted per acre from five to eight ſacks, (240lb.) The ſeed ſhould be changed every two years, and *large* cuttings uſed from your *largeſt* and *fineſt* potatoes. Whole potatoes have been tried, and found not to anſwer. There are various methods of planting, but they may be reduced to two, viz. the drill and the promiſcuous.

If labourers are plenty, the promiſcuous method is ſuppoſed to be the beſt. In this way the land is thrown into beds, five feet wide; intervals or alleys three feet, which are dug and thrown on to the beds.

The ſets are placed one foot apart. Let the ſeaſon be ever ſo wet, the potatoes in this way lie dry. In hoeing* alſo, acceſs is had to the plants without treading on them. They are not ſo liable to be injured by rooks; and ſuch a putrid fermentation is excited by the cloſe thick ſhade of the haulm, that the land is more meliorated, and the weeds more compleatly ſuffocated and deſtroyed than in any other method. In regard to expence there is no great difference, for in this way it may be done for a guinea an acre, and in the drill method it will coſt at leaſt twelve ſhillings. The ſame reaſoning weighs ſtill ſtronger in reſpect to taking up: dexterous labourers, by thruſting their ſpades under the po-

* In hoeing, be particularly careful to cut out all plants which appear curled in the leaf.

tatoes,

tatoes, avoid cutting the roots. They alſo, in digging, ſeparate the *ſmall* from the *large*. They pulverize the ſoil more: they can dig clean, though the land be wet: and, on the whole, the expence of digging will not exceed that of ploughing out, more than *ten ſhillings* an acre. If the crop be a good one, the ſeparating the ſmall potatoes from the large will coſt more than this difference. The produce varies from fifty to one hundred and twenty ſacks (240lb. each) an acre; and the general price, as human food, is from four ſhillings to ſeven ſhillings per ſack; and on particular occaſions they have been ſold at ten ſhillings.

When dug, they are ſecured in pits, and if common care and attention be beſtowed, they are preſerved in this way through the moſt ſevere winter, without injury; but they will ſhrink in reſpect to meaſure about one ſack in twenty.

From a ſeries of experiments made by the writer of this report, and communicated through the channel of the Bath Society's Papers, it appears that their value, when applied to the fatting of hogs, could not be made to exceed two ſhillings and ſix-pence, or three ſhillings, per ſack, of 240lb.: and from other experiments ſince made, it is probable, that no greater value can be affixed to them if applied to the ſuſtenance of any other ſtock. However, this ſhould be no diſcouragement, for on good land, and with good management, they may be grown for one ſhilling and ſix-pence per ſack, and will furniſh the farmer with a certain ſupply of food in thoſe months wherein he is moſt diſtreſſed.

Many object to the cultivation of this root *on a large ſcale*, conſidering it in the light of a great exhauſter. If the produce of any crop, ſo productive as this is, be ſold from the farm, and conſumed at ſo great a diſtance that no return can be made, I will acknowledge that ſuch muſt be the effect; but if potatoes are conſumed on the premiſes, the return of manure,

manure, from the conſumption of *one* acre, will be ſufficient for *two* or *three*; and as the potatoe crop ought always to be highly manured, no deficiency need be feared in the ſubſequent crops of corn, graſſes, &c. particularly if wheat be baniſhed as a ſucceeding crop, and barley or oats ſubſtituted in its place.*

It is now a common practice, inſtead of boiling, to dreſs potatoes by ſteam, and by ſo doing, the quality is rendered more farinaceous, and a conſiderable ſaving is made in the article of fuel.

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* The reaſon why wheat frequently fails after potatoes, is becauſe the frequent hoeings and digging render the land ſo light and porous, that it is more ſubject to the ravages of the grub, earth-worm, &c.; beſide, in cold and expoſed ſituations, the ſowing is generally protracted till the month of November, which alone is ſufficient to check the practice.

N. B. The writer has known thirty-two ſucceſſive crops of potatoes from the ſame field, and the produce as good at the latter part of the term as at the beginning. This will puzzle the theoriſt, with his *peculiar ſubſtances of nutrition.*

A large cow, tied up a month after calving, ate 2cwt. and 18lb. of hay in one week, and on the enſuing week, being given four buſhels (Wincheſter) of potatoes, the conſumption of hay was reduced to 3qrs. and 26lb. It appears, therefore, that a ſack of potatoes is equal to 1 cwt. of hay. The quantity of milk was increaſed by the potatoes, but it was thinner in quality.

CHAPTER VIII.

SECT. 1. *Natural Meadows and Paſtures.*

IT has been already obſerved, that the graſs land of this diſtrict greatly preponderates; and if it be not chilled by too much moiſture, it may boaſt of almoſt a perpetual verdure.

On the rich marſh land near the Briſtol Channel, the grazing ſyſtem prevails. In the vicinity of Briſtol and Bath, the ſcythe is in conſtant uſe; and at a greater diſtance nothing is ſcarcely ſeen but the milking-pail. To which ever of theſe purpoſes the land is devoted, its bounties are not niggardly diſpenſed. If we view them comparatively, the hay ſyſtem is perhaps the moſt injurious to the land, and the leaſt productive of profit. This article ſeldom exceeds three pounds per ton; and if we conſider the riſk in making, the expence of carriage, the loſs of time, and above all, the declining value of the eſtate ſo occupied, few arguments can be wanted to prove the impolicy of the ſyſtem. In ſhort, I never knew a hay-ſelling farmer get rich.

SECT. 2. *Artificial Graſſes.*

On the ſtone-braſh and freeſtone-grit ſoil, *ſainfoine* takes the lead; and though the ſeed is very expenſive, the quantity and quality of its produce, together with its durability, make an ample return of profit, particularly if ſown when the land is clean.

Next to ſainfoin, *rye-graſs*,* *marl graſs*, and white *Dutch clover*, are in deſerved repute when the land is intended to remain

* The Agricultural Body is much indebted to Mr. PEACEY, of Northleach, Glouceſterſhire, for his careful ſelection and diſſemination of

remain ſome years in graſs; but when it is intended to be ploughed again in the courſe of a year or two, *broad-clover* is preferred to all other artificial graſſes.

Perhaps there are few things in huſbandry more difficult to be accompliſhed than that of reſtoring worn-out arable to a good paſture. A few hints on this ſubject may not be unacceptable.

The firſt ſtep is to extirpate from the land all noxious weeds. This may be done by a compleat winter and ſummer-fallow; or, in place of the ſummer-fallow, by a crop of potatoes, well manured, and kept perfectly clean, and followed by winter vetches, fed off in the ſpring.

At the latter end of May, or beginning of June, ſow one buſhel of buck-wheat per acre, and when that is up, and in rough leaf, harrow in (chooſing, if poſſible, moiſt weather) two buſhels of hay ſeed, collected from the beſt meadow hay, half a buſhel of rye-graſs, four pounds of marl graſs, and four pounds of white Dutch clover. The buck is intended principally as a ſcreen to the graſs ſeeds.

If, therefore, the harrowing ſhould pull up ſome of the plants, ſo much the better. A thick crop is not deſirable. After the buck-wheat is harveſted, which will be ſome time in September, let the field be hayned, or ſhut up for the winter; and let it be fed the next ſummer with ſheep, or any kind of cattle, except horſes; the latter animal will tear up the young plants with his teeth.

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of the true perennial rye-graſs, which is in every reſpect ſo much ſuperior to the common rye-graſs, ſold by ſeedſmen, as to juſtify the warmeſt recommendation to the practical and diſcriminating huſbandmen. Some people have objected to this graſs, under an idea that it is not ſo palatable as the common rye-graſs. Stock it whilſt young, and put double the quantity of ſheep that you generally do, and this objection will vaniſh. J. B.

Should

Should this paſture, in the courſe of three or four years, decline in fineneſs of herbage, and become coarſe and rough, which is frequently the caſe, give it a top-dreſſing of lime, or lime mixed with pond or ditch earth, or the ſcraping of a road made with lime-ſtone, or marl; and if neither of theſe can be procured, with coal or ſoapers' aſhes, or any kind of compoſt; and two years after either of the above manures are adminiſtered, ſerve out ſome good meadow hay on it in the months of January and February, and then give it a compleat covering of rotten dung.

By this method a good permanent paſture may be obtained. If the ground ſo laid down be intended for *pleaſure* ground, omit the rye-graſs, and add to the natural graſs ſeeds.

Sect. 3. *Hay Harveſt.*

In the management and curing of the natural graſs, the inhabitants of this diſtrict, particularly in thoſe parts where it is intended for ſale, are very attentive.

Women or children are employed to ſpread the graſs after the mower. About the middle of the day it is turned, and in the afternoon put into ſmall cocks. Next day it is again ſpread with great care, ſhaking it high up in the air, and ſeparating as much as poſſible every blade. In the courſe of the ſecond day, it is twice turned; and early in the afternoon, whilſt the *ſun's rays are ſtrong and powerful, and the hay warm*, it is again cocked in heaps, about double as large as thoſe of the preceding evening. On the third day it undergoes a ſimilar proceſs in regard to the ſpreading and turning; and if the weather be very fine, and the crop not exceeding thirty cwt. per acre, it will be fit for ſtacking;—if otherwiſe, it ſhould be put into large cocks, and left till the fourth morning, avoiding on all occaſions ſtacking late in the evening,

evening, or in a ſtrong dew. Should the weather be difficult, and the hay-making be interrupted by frequent ſhowers, or by ſome days rain, make a point of drying it thoroughly, and then *ſalt it* after the rate of a peck of ſalt to a ton of hay; this will make it palatable to the cattle. On all accounts, avoid making a chimney in the ſtack, for this will inevitably make the hay mouldy and unwholſome.

Should it heat too much, and be in danger of taking fire, *turn the mow* before the heat is too far advanced. The expences of hay-making varies from eight to twelve ſhillings per acre.

In making artificial hay, the ſmall cocks into which it is got the ſecond day, are frequently turned and ſhook up, but *not ſpread*; and it requires two or three days more than natural hay before it is fit for the large mow.

N. B. One cubic yard of hay, in a mow well made and not overheated, will weigh on an average of the whole mow about thirteen cwt.

SECT. 4. *Feeding.*

The upland paſtures of this diſtrict have ſeldom a ſufficient bite of graſs till May-day.

Two acres, worth thirty ſhillings, per acre are neceſſary to ſummer a cow well, and one acre and half for her winter provender. As it is the general practice to ſerve their cows during the winter with hay in the fields, the land is frequently in wet ſeaſons ſo pounded, as to be unproductive great part of the ſummer.

In ſummer feeding, attentive farmers have the dung which falls from the animal ſcraped up and wheeled into heaps, and the thiſtles and rough ſpots frequently mown.

They alſo make a point of excluding horſes and ſheep from their cow paſtures. And when their mown ground is fit

fit to be ſtocked, they hayn their ſummer leaze, ſo as to have a good ſupply of rough graſs or rowen in the winter. They alſo mow and feed alternately, by which means the beſt ſorts of graſſes are preſerved and encouraged.

A RECEIPT *for making* HAY-TEA.

BOIL about a handful of hay in three gallons of water, (and ſo in proportion for a greater or ſmaller quantity) or if the water be poured boiling hot on the hay, it will anſwer nearly as well.

Give it to the cattle and horſes to drink when cold; or if the cattle and horſes are any ways ill, and under cover, give it them blood warm. This drink is ſo extremely nutritive, that it nouriſhes the cattle aſtoniſhingly, repleniſhes the udders of the cow with a prodigious quantity of milk, makes the horſes ſtale plentifully, and keeps them healthy and ſtrong; and by this method one truſs or hundred of hay will go as far as eight or ten otherwiſe would do.

The cattle and horſes do not ſeem to like it at firſt; but if they are kept till they are very thirſty, they will drink freely of it ever afterwards.

The hay, after being uſed as before-mentioned and dried, may be uſed as litter for horſes and cattle, make very good manure, and ſave ſtraw, which will be a conſiderable advantage, eſpecially where there is a ſcarcity of ſtraw.

N. B. By a handful of hay, is meant as much as a perſon can graſp in his hand from a parcel of looſe hay.

And it is preſumed and wiſhed, as the above method is ſo very eaſy and ſafe, that no perſon who has cattle, cows, horſes, or ſheep, will neglect to try it.

CHAPTER IX.

GARDENS AND ORCHARDS.

THE horticulture of this diſtrict is ſufficiently underſtood and practiſed, to ſupply the cities of Briſtol and Bath with a great variety and abundance of culinary productions; but there are no remarkable inſtances of ſkill in the exhibition of early field crops.

In reſpect to nurſeries, the Rev. J. Brookes, of Cold-Hinton, takes the lead; he has eight or ten acres under a very regular ſyſtem of management. The annual expence of labour in a nurſery amounts to about twenty-five pounds per acre.

The whole diſtrict is full of orchards, which let from three pounds to ſix pounds per acre; and the fruit produced at the northern baſe of Mendip hills, viz. at Langford, Burrington, Rickford, Blagdon, Ubly, Compton-Martin, and Harptry, affords a cyder ſtrong, palatable, and highly eſteemed as a wholeſome *table* liquor. Many of theſe orchards have a northern aſpect, and are ſheltered from the violence of the weſterly winds; and it is noticed, that orchards, ſo ſituated, are the moſt regular and uniform bearers.

The favourite apple, both as a table and cyder fruit, is the *Court of Wick Pippin*; taking its name from the ſpot where it was firſt produced. It originated from the pip or ſeed of the golden pippin, and may be conſidered as a beautiful variety of that fruit. In ſhape, colour, and flavour, it has not its ſuperior: the tree is large, handſome, and ſpreading, and a very

a very luxuriant bearer.* On the whole, it cannot be too ſtrongly recommended.

Mr. Good, who occupies a large farm in Hutton, has a method of making cyder, which it may not be amiſs to deſcribe. The apples are ground by a horſe-mill. The pummice is then wrung in hair bags; after which it is put into a tub and chopped. It is then ground over again, and made into a cheeſe, which ſtands in the preſs all night.

In the morning the preſs is ſtrained as tight as it will bear by a lever or cap-ſtaff; by theſe means, the cheeſe is made ſo dry, that it is cut into narrow ſtrips, tied up in faggots, and burnt. He can make one hogſhead upon eight more than by the common method. Two men make and tun five hogſheads in a day, and the horſe will grind the apples in three hours.

Query. Is not the quality of the cyder injured by ſuch cloſe expreſſion?

The grinding apples by a horſe-mill ſaves much manual labour, and expedites the buſineſs of cyder-making. But whether Mr. Good's method may be the beſt, or moſt lucrative, is a matter of queſtion, for what is gained in quantity is loſt in quality; the liquor procured by the ſecond forcible expreſſion being certainly weaker than the firſt, and being mixed with it, muſt reduce the whole to a lower ſtaple. No water-cyder can be made after ſo ſtrong a preſſure of the pummice; and as, in the common way, two hogſheads of good water-cyder can be made after ſeven of the beſt, the loſs ſeems more than the gain.

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* Grafts from this tree may be had by application to the reporter; and a ſample of the fruit has been ſent to Sir John Sinclair for the obſervation of the curious in this article.

Notwithſtanding

Notwithſtanding the apparent utility of extenſive and productive orchards, many conſiderate and ſenſible men have heſitated in giving their unqualified aſſent to this ſentiment; alledging, that a plenty of cyder is the forerunner of idleneſs, drunkenneſs, and debauchery, not only among the lower claſs, but alſo among the yeomanry themſelves, who at theſe times ſpend ſucceſſive days and nights in toping and guzzling at each others' houſes. We ought not, however, to confound the abuſe of a thing with its intrinſick value.

CHAPTER X.

WOODS AND PLANTATIONS.

THE country is but partially wooded, and, on account of the demand from the collieries, the wood is but very irregularly cut. Syſtematic plantation is but little ſtudied.

Kingſwood covers about two hundred and thirty acres. The timber is chiefly oak, but does not get to any large ſize; the woods being, for the moſt part, ſituate at the declivity of the hills, where there is but little depth of earth. The underwood is cut for wreaths or faggots. The valleys are in general richly laden with elm, which grows ſpontaneouſly in the hedge-rows, and gets to a good ſize. The method practiſed here of lopping off the ſide branches, to what is called a beſom-head, cannot be too much execrated. It is deſtructive to the growth of timber, and by leſſening the agitation produced by winds, deprives it of what may be deemed its ſalutary exerciſe. The effect of cutting off the lower branches is a premature delay, which firſt takes place in the top of the tree, a general check is given to the circulation of the ſap, and it reduces the tree nearly to the ſtate of a pollard.*

On the northern declivity of Mendip hills are ſome very good coppice woods; the principal are, Blagdon, Haſel, and Ubly, containing in the whole about 150 acres.

* This is not the worſt conſequence of the beſom-head. Philoſophers are now agreed, that trees in full verdure receive a great portion of their nouriſhment from the atmoſphere, by the abſorbent veſſels of their leaves; hence appears the impolicy of depriving a tree of that head which nature intended ſhould aſſiſt in bringing the body to perfection. A. C.

Theſe

Theſe woods are very romantick and pictureſque, and being ſecured from the ſouth-weſt breezes, the growth is very rapid, and the profit greater than any will believe who have not had experience thereof; beſide, theſe profits may be made annual, and are in themſelves more certain than any other produce. You have only to divide a coppice of forty-eight acres into twelve parts, that is, four acres per year, twelve years growth. The more aſh in theſe coppices the more valuable, as the poles are very ſaleable at the coal-pits; and I have known many inſtances of an acre producing in value ſixteen pounds net after the expences of cutting, carriage, &c. have been deducted. This is nearly twenty-eight ſhillings per acre per annum, for the whole forty-eight acres, beſides the accumulating value of timber-trees. It is more profitable to cut coppice-wood every twelve years, than to let it remain longer. On the ſouthern declivity of Mendip hills, there are alſo ſome coppice woods, *Stoke wood* the principal; but theſe being expoſed to the weſtern breezes, are not ſo productive.

In the eaſtern part of this diſtrict there are alſo ſome large and productive woods, ſuch as Mells, Leigh, Edford, Harwich, Compton, Camely, &c. theſe being near the coal-works are very valuable; interſperſed alſo are many beautiful plantations, which are not only an ornament to the reſpective ſeats to which they belong, but are in themſelves a fertile ſource of annual profit.

On land properly ſituated, no ſpeculation can be more profitable or more pleaſing than planting; the only objection is, the length of time required to bring it to perfection; but ſurely this ought not to have much weight, as the benefit muſt accrue either to the planter or his heirs; and certainly there is no way ſo eaſy of raiſing fortunes for younger children as by planting.

The

The ancient foreſt of Selwood (on the verge of which the town of Frome ſtands) appears to have compriſed a woody vale of about twenty thouſand acres, about eighteen thouſand of which are now cleanſed and converted into paſture and arable land, with a ſmall portion of meadow; the remainder continuing in a ſtate of coppice-wood. The chief ſorts of timber in theſe coppices are oak and aſh, which, though not of large growth, are very good of their kinds, and find profitable markets in the neighbourhood; the oak ſelling from fifty ſhillings to three pounds ſixteen ſhillings per ton, and aſh from forty-five ſhillings to three pounds. The underwood is chiefly hazel, aſh, alder, withy, and birch; ſome of which, at eighteen or twenty years growth, ſell as high as ſixteen pounds per acre. To ſtate the profit of theſe coppices in a clearer light, I would remark, that the annual value per acre, in timber and underwood, (I ſpeak of thoſe coppices which lie towards the northern end of Selwood) is from fifteen to thirty ſhillings. Much of the open land within the limits of this ancient foreſt does not net more than ten or twelve ſhillings per acre.*

* Digging holes one foot and half ſquare and four inches deep, for planting young trees, may be done for two-pence per ſcore, if the land be not very ſtony; but the beſt method of planting trees is on the ſod, covering the roots with other ſods inverted, that is, graſs to graſs. J. B.

CHAPTER XI.

WASTE LANDS.

IN this diſtrict there are many commons unincloſed; the principal of which are, Broadfield-Down near Wrington, and Lanſdown near Bath. The former contains two thouſand five hundred acres, and is for the moſt part a good ſoil, deep in earth, and eaſily ploughed.

Surely the incloſing and cultivating a tract like this, ſituate only eight miles diſtant from the city of Briſtol, could not fail of being a great advantage to the proprietors; particularly as it abounds with excellent lime-ſtone, and the coal-pits are only a few miles diſtant.

Lanſdown comprehends nearly one thouſand acres; but as the ſoil is thin, and the ſurface perfectly ſmooth, and remarkable for its excellence in feeding ſheep, to which it imparts a delicate flavour, it might not be prudent to break it up, eſpecially as it affords a luxurious and beautiful ride to the ſojourners in Bath.

Incloſing has been of long ſtanding in moſt of theſe parts; many have exemplified an advance of rent more than two-thirds. The produce in many inſtances has been, of wheat thirty buſhels, barley forty, oats fifty, and beans from thirty to forty per acre.

Increaſe of population in proportion.

Beſides the above, there are ſeveral thouſand acres of moor-land in what is called the North-Marſh, the preſent condition of which is diſgraceful to the owners. Moſt of theſe moors conſiſt of a rich fertile paſture, overcharged with ſtagnant water many months in the year, which inconvenience might eaſily be removed by the methods before ſuggeſted.

CHAPTER XII.

IMPROVEMENTS.

SECT. 1. *Draining.*

NOT ſo much attention has been paid to the draining of land as the object undoubtedly requires; but in ſome caſes, where incloſures have been accompanied with a weeping ſurface, great improvements have been made by ſtone-draining. The acclivities from the vales are for the moſt part of this quality and complexion; and if the ſprings, which iſſue from the ſides of the hills, were taken off at their head by judicious drains, and diverted into a proper channel, the value of the land would be advanced at leaſt one-third.

Main drains two feet and half deep and two feet wide, in a heavy ſtrong clay ſoil, may be dug for one ſhilling and ſix-pence per rope, (twenty feet) viz. nine-pence per rope digging the drain and placing the ſtones, three-pence per cart-load quarring the ſtones, and three-pence per load halling. Each rope will require one cart-load and half of ſtones.

Small drains, leading to the main drain, may be executed for ten-pence per rope (twenty feet.)

SECT. 2. *Paring and Burning.*

Burn-baiting, that is, cutting off the turf, drying it, and piling it in heaps, and afterwards burning it to aſhes, has been tried, but no ſenſible good effect, either immediate or diſtant, having been experienced, the practice is relinquiſhed;

and I rather think this proceſs is beſt calculated for cold, ruſhy, and heathy grounds, of little or no value.

The effect of burn-baiting, even on lands beſt adapted to this proceſs, does not laſt more than three or four years; and if followed up with ſucceſſive corn crops, the ſtrength of the land is ſo exhauſted by the forced fertility, that a reſt of eight or ten years is neceſſary to prepare for its repetition. If burn-baiting be practiſed, it ſhould be for turnips, after which only one crop of barley or oats ſhould be taken, and artificial graſſes ſown therewith. If this rotation of crops be adopted, I ſee no reaſon why lands to which the manure is congenial, ſhould be wholly denied the advantages of the practice.

A great deal in theſe inſtances depends upon the ſkill and judgment of the farmer. If he be wantonly debarred from the uſe of a valuable manure, he is injured; and if, on the other hand, he uſes it without diſcretion, his landlord ſuffers, and the moſt indefatigable induſtry will not ſave himſelf ultimately from loſs, and perhaps ruin.

Sect. 3. *Manuring.*

MARL.

The pariſhes of Midſummer-Norton, Stratton-on-the-Foſs, Kilmerſdon, Radſtock, Timſbury, High-Littleton, Farmborough, Paulton, Ston-Eaſton, Binegar, and Chilcompton, comprehend a diſtrict of land, part of which is rendered remarkably fertile by the application of marl.*

The ſoil conſiſts of an earth more or leſs loamy, of a mixed colour, between brown and red, with a prevalence of

* Marl alſo may be found at Queen-Charlton, Chewton-Keynſham, and Burnett.

one

one or the other; very ſtony, reſembling that kind of ſoil uſually denominated corn-grit, and naturally ſo barren, that when in common field, at the beginning of the preſent century, the lands were not ſet at more than three ſhillings and ſix-pence per ſtatute acre.

By a moderate computation, this ſoil may be ſaid to occupy, in the pariſhes before enumerated, an average proportion of at leaſt one-third. At a variable depth from the ſurface an inexhauſtible ſtore of black marl is conſtantly found, which, from properties equally ſingular as to fertility and duration, has advanced the lands from three ſhillings and ſix-pence to one pound eleven ſhillings and ſix-pence, and ſome to two pounds per ſtatute acre; and this too with a very liberal allowance of profit to the occupier.

This valuable manure is raiſed in the ſummer at the average depth of about ſeven or eight fathom, by ſinking a pit or ſhaft of four feet diameter, the ſides whereof are ſecured by timber props, interſperſed with wreathings of bruſh-wood, and it is drawn to the ſurface by means of a windlaſs and buckets.

The firſt bed of marl perforated is blue, two feet thick, of a ſtiff conſiſtence, and on repeated trials found in a comparative degree uſeleſs. Below this lies a ſtratum of ſtone, nine inches thick, and of a blue colour; next to which is found a bed of marl, from three to four feet in thickneſs, nearly horizontal, of a colour approaching to black, and, towards the lower part, of a ſhelly ſubſtance; the greater predominance whereof is found proportionably to improve its fertilizing property.

The expence of raiſing it, including that of ſinking the ſhaft, is from eight-pence to one ſhilling per cart-load of twenty-four buſhels. That, and carting out, ſpreading and bruſhing in, eighteen ſhillings per ſtatute acre.

Forty

Forty load is an ample dreſſing for a ſtatute acre, which, at one ſhilling per load, amounts to	£.2 0 0
Carting, ſpreading, &c.	0 18 0
The whole	2 18 0

For which a manure is obtained that ſecures a luxuriant undiminiſhed vegetation, not requiring any further aſſiſtance for fifteen or twenty years. The generation of moſs manifeſts the declining effects of this manure. It is conſidered as an indication for breaking up the old ſward, which is generally done. This developes a very curious and ſingular phœnomenon; namely, the marl ſpread on the ſurface forty or fifty years before, has only obtained the depth of between five and ſix inches, where it forms a regular, uniform, conſolidated bed. Even at this depth its effects, although not exhauſted, are nevertheleſs ſo much impaired as to demand its renewal. Will not this fact tend, in ſome degree, to elucidate its modus operandi?

While it remains within two or three inches of the ſurface, which is the caſe in ſome inſtances perhaps for twenty years or more, it may be ſuppoſed to form a kind of pan or reſervoir for the nutritious and fructifying influences depoſited by the atmoſphere; which being there retained, and in contact with the roots of the graſſes, form ſuch combinations in the laboratory of nature as are beſt adapted to give vigour and permanence to the elementary principles of vegetation. Theſe are evidently weakened when the marl, by its deſcent, gets below the roots of the graſſes, and thereby deprives them of the matrix, which ſeems to preſerve the means of their nutrition and ſupport. This may account for the production and increaſe of moſs on the ſurface, and the neceſſity of marling afreſh, not only to impede its propagation but to deſtroy it.

It

It is obſervable that when marl is laid on this moſſy ſurface, which accompanies an old ſward, to avoid a courſe of tillage, the improvement is not equal to that of laying it on clover, or marl-graſs, the ſecond year from the time of ſowing.

An inconſiderable portion of theſe lands is employed in tillage under the following courſe of cropping:

1ſt year.—Old ſward ploughed up in Auguſt.

Wheat—harrowed in October and the beginning of November on one earth.

Produce—from twenty-five to thirty buſhels (eight gallons) per acre.

2d year. Wheat—ſingle ploughing harrowed in as before.

Produce from thirty to thirty-five buſhels.

3d year. Wheat again.

Produce, from twenty-five to thirty buſhels.

Sometimes barley with or without fallow.

Produce fifty-ſix buſhels.

4th year. Peaſe with two or three ploughings.

Produce, from twenty to twenty-five buſhels.

Then winter-fallow as a preparation for next year.

5th year. Barley and clover or marl-graſs.

Produce, forty-eight buſhels.

6th year. Clover or marl-graſs.

When mowed, produce from thirty to forty cwt. per acre.

7th year. Clover or marl-graſs fed.

Defective and ruinous to the land as the firſt three years' rotation of crops may appear, it is nevertheleſs with little variation uniformly purſued; and, with little abatement of produce, is renewed for another ſeven years ſucceſſion.—Even a third is carried through by many farmers, accompanied

panied with fallowing for ſome of the wheat crops, and aſſiſting the land with a ſprinkling of farm-yard manure. Even a fourth ſucceſſion, with leſs wheat and more barley, is carried on by a few conſiderable farmers in the diſtrict; but from the lightneſs of the ſoil, and the difficulty of keeping weeds under, the crops fail, notwithſtanding a more liberal uſe of manure.

A ſyſtem of cropping, ſo very perverſe and erroneous, carried to ſuch a length on land rented at thirty or forty ſhillings per acre, muſt in the end involve the farmer in a yearly loſs, and cannot but aſtoniſh every one; more eſpecially if it be recollected, that this very land is ſuſceptible of reſtoration to its former vigour and fertility at the moderate expence of two pounds eighteen ſhillings per acre.†

Marl graſs* is the ſpontaneous production of the marl land. It was firſt noticed and collected fifty or ſixty years ago by a Mr. JAMES, who lived on a farm belonging to the Marquis of BATH, in the pariſh of Chilcompton. By his aſſiduity in preſerving and propagating the ſeed, in the courſe of a few years it became common, and has been conſidered ever ſince as a valuable ſubſtitute for red or broad clover,

† As every acre of land improved by marl gives a permanent addition to the national ſtock, premiums for the diſcovery of it, where it has not yet been found, and for the application of it, where it is known to exiſt, but has not been uſed, might very probably be attended with more real and durable benefit to the community, than a multitude of others which are annually propoſed by the different Agricultural Societies eſtabliſhed in various parts of the kingdom. Covenants might alſo be inſerted in leaſes, obliging the leſſor and leſſee, on proper conſiderations, the former to be at the expence of raiſing, the latter of carting and ſpreading the marl on any given number of acres that may be agreed on. R. P.

* Trifolium Alpeſtre.

to

to which it bears rather a ſtriking analogy; with, however, this difference, that it will continue much longer in the land.

When the marl lands are laid down to graſſes, trefoil or white Dutch clover is ſown in the proportion of ſeven pounds to twenty pounds of marl-graſs or broad-clover, which enriches, diverſifies, and by its early vegetation and bloſſoming, produces a carpet the moſt beautiful and pictureſque that can well be imagined.

Marl has been repeatedly tried on the looſer red earth lands, and on freeſtone grit ſoil, in different parts of the diſtrict, without producing any good effect. It has alſo been carried ſome miles out of the diſtrict, and applied to the light red earth of the lime-ſtone lands, with no better ſucceſs.

The contiguity of the pariſhes to Bath and Briſtol not exceeding a mean diſtance of nine miles, acceſſible by good roads, and which afford markets of almoſt unlimited conſumption; the luxuriance of the paſturage, the early vegetation in the ſpring, all concur to render dairies a very eligible, as it is a general mode of occupation; yet notwithſtanding on the larger farms, if a greater proportion were devoted to tillage, ſince they produce wheat and barley of excellent quality, and require, under a judicious routine of crops, little manure but the firſt marling for fifteen or twenty years, both landlord and tenant would derive conſiderable advantage therefrom.

The landlord might levy an additional rent of ten ſhillings per acre on the lands ſo converted to arable, under a leaſe of twenty-one years, compelling the tenants to dreſs with marl four years previous to the expiration of the term, by which means they would be left in a very good ſtate of proof.

The

The tenant would be amply repaid his advance of rent, not only by the general certainty and ſuperabundance of his crops, but by the application of the farm-yard manure, ariſing therefrom, to his red earth lands; which he may well do without injury to the former, and thereby find an equivalent, in their improved ſtate, for the advanced rent.

Rational and well-founded as this change of management muſt appear to every intelligent and unprejudiced man, it has nevertheleſs many formidable obſtacles to encounter. The landlord's groundleſs apprehenſions of injury to his lands, under even a well-regulated courſe of tillage; his prepoſſeſſion in favour of dairies and grazing, neither of which tend in any great degree to impoveriſh or exhauſt the ſoil; the rich and beautiful complection of the ſurface ſo gratifying to the eye during the greateſt part of the year; his reluctance to build or enlarge barns, ſtalls, &c.; the frequency of moduſes for tithe of cows; the eaſy rate of agiſtment, and other vicarial tithes; with his rooted averſion to the payment of corn tithes, however moderately levied; the ſmallneſs of many of the farms; and laſtly, his dread of innovation on the accuſtomed practice of his neighbourhood, all concur to diminiſh the quantity of arable land. It muſt be admitted, that farms under one hundred pounds per ann. might not bear the expence of ſuitable buildings, to accommodate the plan here ſuggeſted; but ſince this, on every ſcale, would be proportioned to the ſize of the farm, the advance of the rent, excluſive of intereſt on money expended thereon, would ſecure to the landlord an augmentation of income deſerving his notice.

With reſpect to tithes, the tenant would readily ſubmit to the increaſed amount, and would find more than an adequate compenſation in the abundance of his crops, and the moderate expences of tillage. Yet ſo revolting is tithe, though

though unaccompanied with ſeverity in its application, as to induce the land-owner and tenant to forego a poſitive advantage rather than comply with its demands.

In the pariſh of Kilmerſdon there is a ſpecies of ſoil uſually called a freeſtone-grit, of a light brown colour, ſtiff, clayey, and abounding in ſtone. Underneath, at various depths, is to be found a blue marl, which, on repeated trials, has not hitherto been known to communicate any improvement. This marl is not readily ſoluble when expoſed to the air; but retains its clay-like quality, which renders it unfit either to pervade, or incorporate with the ſoil. Theſe lands are ſometimes devoted to tillage; but are ſoon exhauſted, and left to poverty and reſt for ſeven or eight years, when a ſimilar courſe of management is reſumed. Preſent value from five to ſix ſhillings per acre.

COURSE OF CROPS.

1ſt year. Lay broke up in the ſpring. Summer fallow.

2d year. Wheat ſown early in October.

Produce, twelve buſhels per acre.

3d year. Oats.

Produce, ſixteen or twenty buſhels per acre.

No clover; the ſoil will not ſupport it. If ſown, it gradually declines through want of ſuſtenance.

Here ends the cropping without manure. Mr. WALWYN, of Kilmerſdon pariſh, fourteen or fifteen years ago tried ſainfoin in this ſoil. The produce, from mowing four or five years ſucceſſively, averaged twenty cwt. per acre. It ſo far exiſts now in ſome of theſe lands, as to keep up their value to twelve or fourteen ſhillings per acre. Where totally extinct, on breaking up afreſh, the ſoil is found in better proof than in its priſtine ſtate. Notwithſtanding this experiment,

accompanied

accompanied with effects ſo obviouſly beneficial, yet the example has been but very little, if at all, followed in the neighbourhood, although ſurrounded by ſeveral hundred acres of a ſimilar quality. However, a gentleman of large fortune, and proprietor of the greateſt part of this barren diſtrict in the ſame pariſh, has for two or three years paſt attempted its melioration, by ſummer fallowing and turnips, to ſome parts of which he gives four or five ploughings and harrowings. Its texture is already conſiderably looſened.—Barns, ſtalling, and farm-yards, are provided on a large ſcale, in a ſituation to command the whole. Within a reaſonable diſtance he can procure a ſupply of ſand and coal-aſhes; a reſource too valuable to be overlooked. With a reliſh for agricultural improvement, a practical attention to its progreſs, and the conveniencies before mentioned, there is little doubt, but that in the courſe of time he will be enabled, in no trifling degree, by a judicious ſyſtem of cropping, to fertilize this very intractable ſoil.

LIME.

The liming ſyſtem of improvement has been fully detailed in the account given of Mendip hills. Green crops are ſeldom ploughed in as a manure, nor are the drainings of the farm-yard collected into reſervoirs as they ought to be.

Bones, rags, night-ſoil, horn ſhavings, ſoot, &c. which in ſome countries are highly eſteemed, are here little regarded. In ſhort, too much confidence is placed in the natural richneſs and fertility of the ſoil.

SECT. 4. *Weeding.*

Some attention is paid to the weeding of the wheat crop, but little to the weeding of lent corn. This branch of rural œconomy is too much neglected.

SECT.

SECT. 5. *Watering.*

The watering of paſtures is not much known, though the advantage reſulting from that practice in neighbouring counties is not queſtioned.

The intermixture of lands embarraſſes the operation of individuals in that reſpect, and this ſeems likely to prevent a practice from becoming more general, which numerous ſprings and rivulets would otherwiſe favour.

The water iſſuing from Mendip hills is unfit for this purpoſe, carrying with it noxious mineral particles, deſtructive to vegetation.

More will be ſaid of watering when we come to the ſouthweſt diſtrict of the county.

CHAPTER XIII.

LIVE STOCK.

SECT. I. *Cows.*

AS the cows are all devoted to the dairy, preference is given to that ſort which gives the moſt milk and of the beſt quality; or, in the farmer's language, to that ſtock which makes the moſt goods, whether it be butter, or cheeſe, or both; hence it follows, that in point of carcaſe they are very deficient. They are moſtly of the ſhort-horned breed; and though the fine long-horned cows of North-Wiltſhire have been tried, and ſtrongly recommended by ſome, yet the general run of dairymen are ſtrongly attached to their own breed.

As this is a ſubject of ſome magnitude, let us beſtow on it a few moments attention.

In the choice of ſtock, the buyer ſhould principally attend to the purpoſes for which that ſtock is deſigned, and to the nature and quality of his land.

If his principal object be rearing, either with a view to fat himſelf or to ſell to others, the form or ſhape of the parent ſtock ſhould firſt be regarded.

That frame of body, which is accompanied with the greateſt portion of valuable fleſh, and the leaſt offal, is to be preferred.

An aptitude to fat in youth is alſo an object of great importance. By an attention to theſe points, the farmers of Leiceſterſhire and other counties have ſo attracted the notice of emulous breeders, as to ſell their ſtock at a price

ſcarcely

ſcarcely credible to a plain old-faſhioned farmer. But, however we may admire their care and ingenuity, does it follow that we are to be led aſtray by the extravagant ideas which ſome people entertain of their ſuperiority? A heifer of three or four years old, which diſcovers a diſpoſition to fat, ſeldom proves a good milker, and is by our farmers turned out of the dairy. Beſide, I have been informed that the great breeders are frequently obliged to have the aſſiſtance of Welch nurſes for their calves, through a deficiency of milk in the parent animal. Is this a recommendation of them to the dairyman?

As a confirmation of the idea that handſome ſtock are ſeldom good milkers, I ſhall advert to the North-Devon breed, and I believe in all other reſpects there is not a more valuable in the kingdom.

In that part of the kingdom, little attention is paid to cheeſe or butter; but if a cow produce handſome ſtock, it is all that is required of her; and it frequently happens that a farmer, with ten or twelve cows, has but little more of thoſe articles than is ſufficient to ſupply his family.

The Somerſetſhire dairymen generally keep their good cows till they are ten or twelve years old, at which time their value is reduced to four or five pounds each. A long-horned cow, at that age, might be worth eight or ten pounds; (I mean of the middling breed) here is then an apparent deficiency of four or five pounds; but when we reflect that the keeping of one is worth ten ſhillings a year more than the other, the loſs is not ſo apparent; and if we admit, that the ſhort-horned will make half a hundred of cheeſe more per year than the long-horned, the balance of profit is then in favour of the former.

I do not mean by what I have ſaid to detract from the merit of Mr. BAKEWELL, or other great breeders of the North.

North. I only wiſh to recommend a diſcriminating principle, and to deter the credulous farmer from *too haſty* a dereliction of principles and practices founded in experience, and to which he has been long accuſtomed.

I may be here told, that the foregoing premiſes, from which concluſions are drawn unfavourable to the long-horned cow, are deluſive; that a North-country breeder would laugh at the idea of keeping a cow till ſhe is ten years old; that at ſix years, or at the fartheſt at ſeven, ſhe ought to be in the poſſeſſion of the butcher.

But, coolly and calmly, aſk a practical cow-keeper at what period of life a cow makes the moſt goods, and he will tell you between the age of ſix and twelve years old. I have known cows continue good milkers till they have paſſed their twentieth year.*

When cheeſe only is made, the annual produce per cow is from three to four cwt.

Many dairy farmers, in the vicinity of Bath and Briſtol, make butter and half-ſkimmed cheeſe; in either way, the annual produce per cow is from eight to twelve pounds, including the calf, and profit of pigs.

From three to four acres of land will keep a cow throughout the year.

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* The diſcriminating principle recommended, is a very neceſſary one, and deſerves particular attention. It may here be obſerved in general, that in many parts there is a ſort of cattle, as it were provincial, hardy, thriving, and well adapted to the ſoil on which it is bred. Let the cautious farmer furniſh himſelf with the beſt of this ſort which he can ſelect, and if he muſt improve, as it is called, let him not loſe ſight of the diſcriminating principle, but do it with warineſs and diſcernment. And as very little of the dairyman's profit is expected from ſale of the carcaſe, if his cows are well kept, and yield him a good quantity of rich productive milk, it will be immaterial whether they have long horns, ſhort horns, or any horns at all. R. P.

If

If kept on hay alone, a middle-ſized cow will eat one hundred and three-quarters per week during the winter month, and on an average thirty hundred in the whole winter; this calculation is formed on a ſuppoſition that ſhe calves between Chriſtmas and Candlemas. If turnips or cabbages be given, ſhe will eat, of the former two hundred, and of the latter one hundred and half in twenty-four hours, and the quantity of hay will be leſſened about one half.—Heifers are put to the bull when one year and half old; and very few calves are reared for bulls or oxen, and no more of the female kind than juſt ſufficient to keep up the ſtock.

Next to the ſelection of a proper ſort, good keeping when young is of the firſt importance; and it has been obſerved, that calves, after being turned out to graſs, ſhould have but little water given them. The firſt winter each calf will eat about ſixteen hundred of hay.

SECT. 2. *Sheep.*

In the North-Eaſt part of this diſtrict, that is, in the vicinity of Bath, a very large and good race of ſheep are bred; the wethers of which are commonly folded till they are between two or three years old, and then grazed. Some of theſe ſheep, when well fatted, run to thirty or forty pounds per quarter. Mr. MOGER, of Woolverton; Mr. DAY, of Foxcote; Mr. YOUNG, of Camerton; Mr. HOLBROOK, of Corſton; and Mr. SMITH, of Twerton, are the principal breeders; and this ſort of ſheep, having a large quantity of tallow, is highly approved by the butchers. There is alſo the native Mendip breed, a ſort that will thrive on the pooreſt ſoil, and fatten on ſuch land as will ſcarcely keep other ſorts alive. Paſturage ever ſo dry and expoſed will feed this kind. They are very hardy, and their wool fine. The

mutton is alſo excellent for the table, being full of gravy and of a rich flavour.

The large heavy loaded ſheep of Leiceſterſhire and Lincolnſhire have been tried; but the great doubt lies whether this ſort of ſheep would bear folding; if not, they are inadmiſſible, as folding is the *ſine qua non* of good huſbandry, on the ſheep and corn farms* of this diſtrict.

Under the auſpices of the Bath Society, unto which his Majeſty was graciouſly pleaſed to preſent a Spaniſh ram, a

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* Some time ago the Leiceſterſhire ſheep-breeders were modeſt enough to expreſs only their *doubts* of the utility of *folding* ſheep, but now they do not heſitate poſitively to condemn the practice, and to repreſent it as altogether ridiculous and abſurd. "It is only (ſay they) robbing the *paſture* land to ſupport the *arable*. It cannot increaſe the quantity of manure, nor can the benefit attending it be a ſufficient compenſation for the injury done to the flock."

In a rich fertile country, where the quantity of arable land is ſmall, and in mere ſubſerviency to the breeding or grazing ſyſtem, where dung is plenty, and can be put in the corn land at a ſmall expence, and where each ewe is valued at four or ſix pounds, it is not to be wondered, that the folding ſyſtem ſhould be held in contempt and deriſion; but I will be bold enough to repeat, that in a poor expoſed and extenſive corn farm, the ſoil of which is light and ſtony, it is the *ſine qua non* of good huſbandry.

Let me aſk theſe gentlemen, whether the downs of Wilts and Dorſet would wave with luxuriant corn if folding were aboliſhed? No. The farmer would plough and ſow to little purpoſe, were his fallows to remain untrod with the feet, and unmanured by the dung and perſpiration of theſe uſeful animals. Beſide, in the hot ſummer months, nothing is ſo grateful to the flock itſelf, as freſh ploughed ground; and ſheep will, of their own accord, retire to it when their hunger is ſatisfied. The following may be ſome of the reaſons why theſe gentlemen ſet their faces againſt this uſeful practice:

1ſt. Their ſheep are too valuable to be kept in ſufficient numbers for folding.

2dly. Their inability to walk to any great diſtance.

3dly. Their liability to diſorders from too great heat of body.

J. B.

new

new breed of ſheep has been lately introduced, which bids fair to exceed all others of equal ſize, in quantity and quality of wool, accompanied with a carcaſe by no means deſpicable; but as theſe croſſes of breed are found ſometimes to degenerate, I ſhall not be too warm in recommendation till a farther trial has been made, and experience has confirmed their ſuperiority.

More ſheep would be kept in this diſtrict, were it not for the diſpoſition of the land to bring the foot-rot.

The marl land in particular generates this diſorder; and though the following receipt will make a temporary cure, yet it is a very difficult undertaking thoroughly to keep the feet ſound. The ſcab is alſo a troubleſome and infectious diſorder. The goggles or rickets is a diſorder not much known: it attacks ſheep between one and two years old, and no method of cure has yet been diſcovered.

RECEIPT FOR THE SCAB ON SHEEP.

One pound of quick-ſilver
Half ditto of Venice turpentine
Half a pint of oil turpentine
Four pounds of hogs-lard.

Let them be rubbed in a mortar till the quick-ſilver be thoroughly incorporated with the other ingredients.

RECEIPT FOR THE FOOT-ROT.

Roman Vitriol
Verdigreaſe
Gunpowder, and
Linſeed-oil, made into an ointment.

ANOTHER.

One ſpoonful of turpentine
wo ditto of crab-verjuice.

Sect. 3. *Horſes.*

There are but few horſes bred in this diſtrict—the farmers are principally ſupplied by dealers who attend the North-country fairs. Farriery is in the hands of men equally conceited and illiterate; and theſe uſeful animals frequently die of a diſeaſe called the *doctor*. Few people are aware of the expences which attend the keeping of a team for *road* work.

The following being taken (as an average of ſeven years paſt) from an account kept by a perſon whoſe accuracy may be depended on, needs no apology:

TWO TEAMS, NINE HORSES.

	£.	s.	d.
Two waggoners 61l. turnpike 50l. expences 27l. 6s.	137	6	0
Corn of all ſorts	110	10	0
Brewers' grains four-pence per buſhel	38	19	0
Hay, at three pounds per ton	74	0	0
Harneſs-maker	9	12	0
Tilts, lines, &c.	11	0	0
Blackſmith	27	10	0
Farrier	3	1	0
Wear and tear of waggons	20	0	0
Ditto of horſes	30	0	0
Straw	16	0	0
	*£.477	18	0

Or nearly 240l. per team.

* This calculation affords a very ſubſtantial reaſon why *traunters*, as they are called, (that is, men who keep horſes and waggons for hire) ſeldom get rich.

Cutting

Cutting ſtraw into chaff is much practiſed, but I doubt its utility in reſpect to horſes. The food, in this method, paſſes into the animal's ſtomach without proper maſtication, and in my opinion affords but little nutrition. For oxen, cows, and all ruminating animals, the practice may be advantageous.

Sect. 4. *Hogs.*

The vaſt number of hogs fatted in this diſtrict are for the moſt part bought at Briſtol market of Welchmen, or of itinerant drovers, who travel through the county. They are fed chiefly with whey, ſometimes a little corn is given to finiſh; and their fleſh is of a fine colour and delicate flavour; their weight when fatted from ten to twenty ſcore. Thoſe few that are bred, are of various ſorts:—1ſt. The native white, with large ears and long body. 2d. The Berkſhire, black and white in colour, and of a compact round form. 3d. The Chineſe. 4th. A mixed breed.

In breeding hogs, nothing ſhould be more attended to than *warmth* and *cleanlineſs*; without theſe, the moſt liberal allowance of food will not avail; and as there is a great difference in the quantity of food neceſſary to ſupport hogs of different ſorts, though of the ſame age and ſize, experiments are wanting to aſcertain their different degrees of perfection. In the writer's opinion, the beſt ſort of hogs he ever ſaw, was ſent to a friend of his from Mr. Astley, a great breeder of ſheep in Leiceſterſhire.

The writer of this report has been in the habit of folding hogs on his paſture land, feeding them with raw potatoes.

The improvement of the land has been aſtoniſhing; and when hogs are kept on a large ſcale, the practice cannot be toowarmly recommended.

Sect.

Sect. 5. *Rabbits.*

Some years ſince there were many warrens in this diſtrict, but the only ones now left are, Charter-Houſe, Temple-Down, and Ubly, containing about ſixteen hundred acres. Both the fleſh and ſkin of the rabbits, bred on theſe warrens, are much eſteemed; and they ſell, when in ſeaſon, (that is, from November to January) for two ſhillings and ſix-pence a couple, ſkins included. Could coneys be preſerved from the depredation of *two-legged* and *four-legged vermin*, the occupation would be very profitable; but one ſnowy winter drives them off the warrens never to return, and wipes out the profit of many favourable years.

Sect. 6. *Poultry.*

The great demand in Briſtol and Bath naturally induces an attention to the rearing and fattening of all kinds of fowls. Of late it has been found that potatoes, boiled and mixed with the ſkimmings of the pot, or with any other fat or greaſy ſubſtance, is the cheapeſt food that can be given to all kinds of poultry, and fattens them in a few days, making the fleſh of a moſt delicate colour and flavour.

Sect. 7. *Pigeons.*

Theſe are conſidered ſo ravenous and miſchievous, that few are kept.

Sect. 8. *Bees.*

It is to be regretted that theſe uſeful inſects are ſo little attended to.

Suppoſe in each pariſh of the county there were kept only ten hives, and the average produce of each hive was twenty pounds of honey, this would amount at the preſent price to near five thouſand a year, beſides the value of the wax.

Though

Though many directions have been given in books for the preſervation of the lives of bees, and at the ſame time taking away their ſtores, it does not appear that any of them has been practiſed in this county with ſucceſs.

After they have ſwarmed, driving them out of the full hive, and putting an empty one in its ſtead, has ſometimes anſwered the purpoſe.

This ſhould be done early in the ſeaſon, ſo that the bees may have time to collect a ſtore of food before winter.

CHAPTER XIV.

RURAL ŒCONOMY.

SECT. I. *Labour.*

THE rate of wages, in hay and corn-harveſt, is about nine ſhillings per week, with dinner and beer; at other parts of the year about ſeven ſhillings, with ſmall-beer or cyder.

Time of labour in the ſummer from ſix to ſix; in the winter from daylight till it is dark.

SECT. 2. *Proviſions.*

In the year 1793 wheat was ſix ſhillings per buſhel, (Wincheſter) barley four ſhillings and ſix-pence, oats three ſhillings and three-pence, beef four-pence halfpenny per pound, mutton four-pence halfpenny, pork five-pence, butter nine-pence,* and cheeſe, ſix months old, forty ſhillings per cwt. Now, viz. January 1797, wheat is at ſeven ſhillings, barley three ſhillings, oats two ſhillings and three-pence, per Wincheſter buſhel; beef at ſix-pence, mutton five-pence halfpenny, pork ſeven-pence, butter one ſhilling per pound, and cheeſe fifty-ſix ſhillings per cwt. The prices of all grain are declining rapidly; and it is probable, that before the concluſion of the year 1797, they will be very low indeed.

* In the years 1795-6 wheat was at fourteen ſhillings per buſhel, barley five ſhillings, oats three ſhillings and nine-pence, beef five-pence, butter ten-pence, and cheeſe fifty ſhillings per cwt.

In

In the alarming ſcarcity of bread-corn, and the dearneſs of all other grain, which was felt in the years 1795-6, the attention of mankind was naturally directed to an inveſtigation of thoſe cauſes from which that diſtreſſing evil might have originated. Various were the opinions of mankind on this ſubject; and the chief cauſes ſtated, were, the *conſolidation of farms*, the *combination of farmers, jobbers, and millers*; the *conſumption made by the diſtillers*, the *oppreſſion of tithes*, the *ſale of corn by ſample*, and laſtly, the *increaſed luxury of the times*.

Though all theſe cauſes have undoubtedly contributed in part to produce the effect, which we have had ſo much reaſon to deplore, yet I think the great operating cauſes have been, *ſcanty crops of corn, the prevailing diſpoſition of converting arable to paſture*, and the *unavoidable waſte which muſt inevitably accompany war*.

From the year 1791 to 1796 we had not a firſt-rate crop of corn. The ſummer and autumn of 1792 were a continued ſeries of wet weather; both corn and hay were greatly injured in harveſting, and conſequently the little corn that was well ſecured, advanced in price; but under all theſe unfavourable circumſtances, the old ſtock in hand was ſo conſiderable, that the price in 1793 did not exceed (in the county of Somerſet, at leaſt) ſeven ſhillings and ſix-pence per buſhel, Wincheſter. The produce of 1793 being a middling crop, wheat did not experience much advance, till a probable deficiency in the crop of 1794, accompanied with nearly a total failure in the crop of pulſe, was diſcoverable. Its advance then was very rapid, and great part of the old ſtock being exhauſted, apprehenſions were entertained of an abſolute famine. We may, therefore, from the foregoing ſtatement, draw this fair inference, that three out of the five years before referred to were *deficient in produce*; and that the crops of 1791 and

1793,

1793, though tolerable, were not ſufficient to make good the deficiency of the three unproductive years.

For argument ſake, let us ſuppoſe the average produce of a good crop to be twenty buſhels per acre, and the average conſumption of the kingdom eighteen buſhels?

Let us alſo ſuppoſe the average produce of 1792 and 1794 not to exceed fourteen buſhels, and that of 1795 not to exceed twelve buſhels per acre, the amount will then ſtand thus, admitting that 1791 and 1793 were good years of produce:

1791,	- -	20 buſhels per acre.
1792,	- -	14 ditto.
1793,	- -	20 ditto.
1794,	- -	14 ditto.
1795,	- -	12 ditto.
		80 Produce of five years.
		90 Conſumption in ditto.
		10 Deficient, or two buſhels per acre per annum.

Admitting that three million of acres are annually ſown with wheat, a deficiency of two buſhels per acre, of produce, compared with the conſumption, would require an annual importation, for the above ſtated five years, of 750,000 quarters.

Now, according to a certain writer, the importation from foreign countries, for eighteen years, ending January 5th, 1789, amounted to only 42,657 quarters of wheat, and 283,175 quarters of oats per annum.

From the ſtatement made in the firſt report of the Select Committee appointed to take into conſideration the means of promoting the cultivation and improvement of waſte land,

it

it appears that the total increaſe, in the conſumption of cattle and ſheep, for the laſt ſixty-two years, amounts to the enormous number of 32,854 head of cattle, and 203,290 ſheep, or nearly one-third *for the metropolis alone*; and as the ſize and weight, both of cattle and ſheep, have probably increaſed at leaſt one-fourth ſince 1732, ſuch augmented proportion ought to be added to the calculation of conſumption. This denotes ſuch an increaſe, both of inhabitants and of luxury, as muſt have been attended with a proportionate conſumption of butter, cheeſe, hay, &c.; and if extended to the whole kingdom, clearly accounts for the increaſed price of the before-mentioned articles, and is a ſufficient apology for that predilection for *paſture* land, which, for many years paſt, ſeems to have been univerſally manifeſted.

In the courſe of the laſt thirty years, the price of labour, butter and cheeſe, beef and hay, have advanced in price nearly fifty pounds per cent. Barley and oats have alſo advanced thirty or forty per cent. Not ſo *bread corn*. If we except the laſt two years, that article has advanced but little; and perhaps the average price of the laſt thirty years, namely, from 1764 to 1794, is not much higher than that from 1734 to 1764.

Let us now advert to the conſolidation of farms, to which the multitude have attributed the late ſcarcity; and here I cannot help remarking, that without farms, at leaſt moderately large, I much queſtion the poſſibility of extending an improved agriculture; and were the prevailing wiſh gratified, and the plan of ſmall farms adopted, ſuch a meaſure muſt be attended with a total extinction of that energy and ſpirit which are the life and ſoul of adventure.

What would be the operation of ſuch a ſyſtem in trade, were the clothier, the cotton manufacturer, the artiſan, to be reſtricted to a limited capital? Why, a total dereliction of all

all that animation and exertion which have gained to them a trade with the whole world, and which have rendered their late and preſent improvements the object of general admiration and aſtoniſhment.

An equal diviſion of farms never has exiſted, nor could it continue, if it had. The unequal ability of tenants, the aſſiduity and œconomy of ſome contraſted with the indolence and diſſipation of others, the diverſity of ſoils, the mode of manuring, courſe of cropping, proximity or diſtance from large and populous cities and towns, and variety of ſtocking, are all ſo unſettled in their nature and qualities, that what might be *right* in one inſtance, would be *wrong* in another.

Let me aſk the advocates for ſmall farms what occaſioned that conſolidation of them, which they ſo much reprobate, and to which they attribute, in a great degree, that dearneſs which the nation now experiences. Was it not becauſe the large holder could afford to give more rent than the ſmall? And how was this to be done, but by an increaſed produce? And if an increaſed produce was the conſequence, how could ſuch a meaſure operate in the way ſtated?

But ſome will ſay, does not the conſolidation of farms act as a check to population? I ſay, no.

The ideas of large farmers are more expanded than thoſe of ſmall. The extent of their capital; their more liberal education, and more general intercourſe with the farmers of other diſtricts; the diſſemination amongſt thoſe of knowledge, by means of books and agricultural ſocieties, whereby diſcoveries reach them long before they can poſſibly be known to the ſmall farmer; all theſe comparative advantages concur to introduce a ſyſtem of *cropping*, *cleaning*, *manuring*, and *ſtocking* the land, by which the neceſſary manual labour on a farm is greatly increaſed. And what difference

is

is it to the publick whether this manual labour be performed by the little *farmer himſelf*, or by the *hired labourer* of the large farmer?

True it is, that where cottages are levelled, and the married labourer is obliged to give way to the domeſtick or *ſingle* ſervant, then its operation may be in ſome degree fatal to population; but for this a remedy might be deviſed.*

On the whole, I am of opinion, that any ſyſtem adopted by the Britiſh Legiſlature to limit the extent of farms would be unwiſe and injurious in its operation.

Let it not be inferred, from the preceding remark, that I am an advocate for farms of an *unlimited* extent. No. A farm ſhould never be ſo large as to preclude the poſſibility of good management. Where this limitation (as to corn or grazing farms) may be fixed, it is difficult to ſay, for the reaſons before ſtated; perhaps in no caſe ſhould they exceed ſix hundred pounds per annum. This is large enough to produce, with good management, a ſufficient profit to render its occupier independent and comfortable.

As to dairy-farms, they cannot well be too ſmall.

One even ſo low as ſixty or ſeventy pounds per annum will afford a comfortable proviſion for a family, be wholly conducted (ſerving cattle excepted) by the females of the houſhold; and the male part thereof might increaſe their income by occaſional work done for their more opulent neighbours, the corn farmers of the diſtrict.

But the moſt formidable objection to large corn farms ſtill remains to be anſwered, this is, the capacity which large capital gives the holders of withdrawing the produce from

* Let a tax be put on all unmarried male-ſervants beyond a certain number living and lodging in a farmer's houſe, and let the produce go to the induſtrious married cottager.

market,

market, and thereby producing an artificial ſcarcity; to which may be alſo added, the practicability of combination to enhance the price much beyond a due proportion.

In years of plenty, when the ſoil produces more than is neceſſary for the conſumption of its inhabitants, the man who holds back from market a *part* of this ſuperfluity, ſo far from being an object of condemnation, ought rather to be an object of applauſe, in as much as ſuch conduct tends to preſerve a greater equality of price than could otherwiſe exiſt.

In the latter end of the year 1791, and the beginning of the year 1792, the price of wheat did not exceed ſix ſhillings per buſhel.

The wet ſummer of 1792 occaſioned an advance of price, but even then it did not exceed ſeven ſhillings and ſix-pence per buſhel, nor did it much advance till 1794, when the drought of the ſpring having occaſioned a total failure of pulſe, and a poor crop of wheat, the price advanced rapidly, and at laſt reached the enormous value of fourteen ſhillings per buſhel.

Other cauſes beſide this deficiency of the crop may have contributed to this alarming and melancholy event; but if the foregoing obſervations are founded on fact, we may ſafely infer that the late dearneſs of wheat is eaſily accounted for, without having recourſe to the combination of farmers, the monopoly of jobbers, or to any other of the cauſes before enumerated.

It aroſe from *three years out of five of deficient produce. The almoſt total failure of pulſe in the year* 1794, *and the deſtructive ravages of war*, which has not only leſſened importation, but has inevitably produced in our fleets and armies a waſteful expenditure of this neceſſary article of human food.

CHAPTER

CHAPTER XV.

POLITICAL ŒCONOMY, *as connected with or affecting* AGRICULTURE.

SECT. 1. *Roads.*

PUBLICK roads pretty good, conſidering the traffick upon them. Parochial ones ill managed, and bad; notwithſtanding good materials for keeping them in repair are near and abundant. But ſome examples are beginning to be ſet of more judicious management, by throwing the ſides to the middle, thereby widening the ſpace of paſſage, and making drains at both ſides. This obvious piece of œconomy cannot be too much imitated.

SECT. 2. *Canals.*

The *Somerſetſhire Coal Canal*, which has two branches, the one commencing at Paulton, the other at Radſtock, and both communicating with the Kennet and Avon canal; the *Dorſet and Somerſet Canal*, commencing near Nettlebridge, and extending through Frome to the county of Dorſet; and the *Ilcheſter Canal*; are the only three canals for which acts have been obtained. Another was attempted which was intended to commence at Pill near Briſtol, and to communicate with the Grand Weſtern canal at Taunton. This Briſtol and Weſtern canal, as it was called, might have been carried near fifty miles without a lock, and for the moſt part through a ſtrong clay ſoil. It would, in conjunction with the Grand Weſtern canal, (an act for which has been obtained) have delivered coal to the inhabitants of the

the county of Devon at nearly half the preſent price; and yet all theſe benefits were loſt, and a ſcheme, fraught with publick good, as well as private convenience, was fruſtrated by a certain nobleman, merely becauſe he conceived that he had not been treated by the oſtenſible promoters of it with becoming deference and reſpect.

Sect. 3 and 4. *Fairs and Weekly Markets.*

Many fairs are held in this diſtrict, but Bath and Frome are the only towns which have a weekly market of any conſequence.

Sect. 5 and 6. *Commerce and Manufactures.*

The principal manufactures in this diſtrict are thoſe of woollen cloth, and knit worſted ſtockings, which, in the town of Frome, as well as Shepton-Mallet, are conſiderable; and from the number of hands therein employed, muſt have ſome effect on the agriculture of the neighbourhood.

The town and pariſh of Frome are found to contain nearly ſeventeen hundred families, or about ten thouſand people; more than one-third of which are actually and immediately ſupported by the manufactures ſpoken of; beſides a vaſt number of the lower order of people in the adjacent villages. In this town, the annual quantity of cloth manufactured has lately been found to be more than one hundred and fifty thouſand yards. In Shepton, the inhabitants may be reckoned ſix thouſand, and the cloth manufactured one hundred and twenty thouſand yards.

Juſtice and impartiality compel me to remark, that the woollen manufacture, in almoſt all its branches, has been for ſome years paſt, and is now rapidly decreaſing in its heretofore moſt fertile ſource of national benefit; namely, in furniſhing labour adapted to the different periods and ſtages

ſtages of life. Machinery *muſt* and *will* be univerſally introduced, otherwiſe the diſtricts, where *it is not uſed*, muſt be ſacrificed to thoſe where *it is*. Would the legiſlature interfere to ſuſpend its operations, or limit its progreſs? This would be incompatible with its wiſdom and juſtice. To allow only its *partial eſtabliſhment*, would be oppreſſive; to admit of *none*, would be ruinous; becauſe ſuch machinery, with its appendant branches of manufacture, and a *few individuals* allotted to each, is not only ſuſceptible of, but it is preſumed will ſhortly be, in a ſtate of migration. In Yorkſhire, where it has received a degree of perfection, and an extent of eſtabliſhment, beyond that of any other part of the kingdom, I have been informed, from indiſputable authority, that before the preſent war, the great demand for the produce of the manufactures left but few, in compariſon, to reſort to agriculture for ſupport. What the preſent ſituation may be, in this momentous relation to national proſperity, I am not able circumſtantially to deſcribe, but general rumour ſtates it as a melancholy reverſe.

Whether the introduction of machinery for the expediting carding, ſpinning, &c. will enable the manufacturers to make more cloth, or whether a number of the poor muſt be driven to ſeek ſubſiſtence by other labour, may, perhaps, be beſt aſcertained by experiment. If the revival of the export of kerſeymeres and fine cloth ſhould take place, and ſufficient ſtock of wool can be obtained, the deciſion will be in favour of the former part of the queſtion, and all will be well; but ſhould the preſent check on the export long continue, or ſhould it be found that by the hands now in employ, and the machinery already in uſe, the whole ſtock of wool (which is moſt certainly a limited article) ſhall be wrought into cloth in nine or ten months of the year; the full-grown and aged labourers in this manufacture will be

ſeriouſly diſtreſſed. Landed property in the neighbourhood will be heavily burthened; and the children muſt migrate and ſeek ſubſiſtence by other employ where it can be found. Should this be the caſe, many other profeſſions and employments, which are either mediately or immediately connected with this manufacture, or otherwiſe dependant on the populouſneſs of the neighbourhood, will be ultimately affected. Further, the agriculture of the Weſtern part of Wiltſhire, and the North-Weſtern part of Dorſetſhire, muſt partake of the conſequence of ſuch a migration; for the lands about Frome or Shepton not being well adapted to tillage, the inhabitants are chiefly ſupplied with corn and grain from thoſe counties. The aſſiſtance of machinery was had recourſe to by the manufacturers of Frome and Shepton from abſolute neceſſity; for had they continued in the old method, their trade muſt have been loſt; and indeed *now* the North-country manufacturers are beforehand with them, particularly in the application of water, the beſt *primum mobile* of all machinery.*

It is much to be feared, that the improvements already made, and thoſe now going on, will ultimately be the means of diſſeminating manufactures in other countries, to the prejudice of the export trade of Britain.

There are alſo ſeveral mills on the Avon for preparing iron and copper, and ſundry others for the ſpinning of worſted, and ſpinning and weaving of cotton. The effect on agriculture has been conſiderable; the pay of men, in the

* The prudence of the North-country manufacturers was highly conſpicuous, in their introducing the cotton manufacture fully into their neighbourhood, before they much extended machinery in their woollen; thereby firſt ſecuring full employment for the poor, and then enjoying all the advantages which machinery could beſtow. A.C.

time

time of harveſt, has been greatly advanced, and that of women and children doubled.

It may be ſaid, that this diſtrict cannot boaſt of any practices in agriculture which are peculiar to itſelf; the cultivation of teazles and woad excepted.

Its advances in receiving the improvement of more enlightened agriculturiſts are very ſlow, notwithſtanding it has the advantage of a very reſpectable Agriculture Society, which has been eſtabliſhed in Bath near twenty years. From the tardineſs before mentioned, it ſeems difficult to deviſe any means to engage a ſtronger deſire of improvement. *Draining their wet lands, folding ſheep on their uplands, feeding their cows during winter in the farm-yard, and more frequent marling*, naturally preſent themſelves as the chief objects of notice; and it is eſpecially deſirable, that theſe practices might be ſtrongly urged, if any means could be happily found to do it effectually.

MIDDLE DISTRICT.

CHAPTER I.

GEOGRAPHICAL STATE AND CIRCUMSTANCES.

SITUATION AND EXTENT.

THE middle diviſion of the county is the largeſt, being that part comprehended between the Mendip hills on the North-Eaſt; Quantock-hill and the foreſt of Neroche on the South-Weſt; parts of Devonſhire and Wilts on the South-Eaſt; and the Briſtol Channel on the North-Weſt. It includes the city and borough of Wells, the boroughs of Bridgwater, Ilcheſter, and Milborne-Port, and the market-towns of Axbridge, Shepton-Mallet, Glaſtonbury, Brewton, Caſtle-Cary, Wincanton, Somerton, Langport, Yeovil, South-Petherton, Ilminſter, Crewkerne, and Chard, together with their adjacent pariſhes and villages, amounting in the whole to between four and five hundred thouſand acres.

CLIMATE AND SOIL.

The climate of this diſtrict may, for the moſt part, be pronounced mild and temperate; but on ſo varied a ſurface an uniformity of ſoil cannot be expected.

On the borders of Wilts and Dorſet the lands are high, and partake of the ſoil and management of thoſe counties;

ſheep-

ſheep-walks and corn conſtituting the principal parts of huſbandry. The farms are here large, and *folding* is unremittingly purſued. Wheat is ſeldom ſown without *two* foldings; and fallowing every four or five years is the general practice. The corn produced is of a good quality, and finds a ready ſale at Wincanton, Bruton, and other markets.

The next diviſion of this diſtrict, namely, the country around Shepton, Bruton, Caſtle-Cary, Ilcheſter, Somerton, Langport, Petherton, and Ilminſter, is exceedingly fertile, both in corn and paſture; abounds with good orchards and fine luxuriant meadows, and is altogether as well cultivated and as productive as moſt parts of the kingdom. In ſome parts, flax and hemp are produced in great abundance, which, together with wool, furniſh the raw materials for extenſive manufactures. Weſtward of this, Polden and Hamhills riſe boldly to the view, and conſtitute ſome of the inferior lands of the county. The ſoil on theſe hills being very thin, and the eſtates diſpoſed in ſmall portions of common field, no conſiderable improvement can be effected without a fundamental change in the ſyſtem of management.

Hence we deſcend into the marſh or fen-lands, which are divided into two diſtricts, namely, *Brent-Marſh*, and the *Bridgwater* or *South-Marſh*. Brent-Marſh is that portion of land comprehended between Mendip-hills and Polden-hill on the North and South, Bridgwater-bay on the Weſt, and extending to Wells and Glaſtonbury on the Eaſt.

This marſh may alſo be divided into two parts, ſeparated by a tract of elevated land, on which ſtand the pariſhes of Allerton, Mark, Blackford, Wedmore, &c. Through the Northern level runs the river *Axe*, emptying itſelf into the Briſtol Channel at Uphill; and through the Southern the river *Brue*, emptying itſelf into Bridgwater-bay near Burnham.

This

This country has been heretofore much neglected, being deſtitute of gentlemen's houſes, probably on account of the ſtagnant waters, and unwholſome air; but of late many efforts have been made to improve the ſoil, by draining and incloſing, under a variety of acts of parliament. The benefit reſulting therefrom has been aſtoniſhing. The rhynes and ditches neceſſarily cut to divide the property, together with the deepening of the general outlets, diſcharge ſo much of the ſuperfluous water, that many thouſand acres, which heretofore were overflown for months together, and of courſe of little or no value, are become fine grazing and dairy lands; to the great emolument of the individual poſſeſſors, as well as the benefit of the community. The quantities thus incloſed in Brent-Marſh, within twenty years paſt, under authority of parliament, are as follows:

	ACRES.	
Wedmore and Mear	4,400	together with 1,100 acres of turf-bog as yet unimproved.
Compton-Biſhop	300	
Glaſtonbury —	1,500	Ditto 300 ditto
Weſthay, &c. —	1,700	Ditto 1,000 ditto
Mark ——	2,000	
Huntſpill —	1,200	
Shapwick ——	100	
Blackford —	900	
Wookey ——	900	
Weſtbury —	450	
Bleadon ——	400	
Weſt-Pennard —	250	
Eddington ——	1,000	Ditto 400 ditto
Stoke and Draycot	800	
Nylands ——	350	
Wells —	1,150	
	17,400	2,800 of turf-bog.

Of theſe ſeventeen thouſand four hundred acres, ſix parts out of ſeven are cleared of ſtagnant water, and rendered highly productive: on the turf-bog but little improvement has hitherto taken place.* There remain about three thouſand acres to be incloſed, which (the turf-bogs excepted) will compleat the diviſion of all the moors within the Brent-Marſh diſtrict. It is not to be underſtood, that the local drains, under ſuch a variety of acts, and at ſuch different times, can have the moſt perfect influence on the country; particularly when it is conſidered, that the river Axe has no barrier to the tide, which flows ſeveral miles, and choaks the lower part of it with *ſlime*, to ſuch a degree, that many thouſand acres adjoining the upper parts of the river are, in conſequence thereof, very much injured. Were a barrier, with proper ſluices, erected near the Briſtol Channel, ſome of the moſt conſiderable windings of the river ſhortened, and the ſhallow parts deepened, not only the moors, but the *old incloſures*, would be benefited thereby, to the amount of at leaſt five thouſand pounds per annum.

The river Brue drains a much more conſiderable part of Brent-Marſh than the Axe, and has a barrier to the tide (which riſes there no leſs than twenty feet in height) with ſluices therein, at Highbridge; but its foundation, and the apron and cills of the ſluices, are at ſuch a height above low water mark, that the drain is very imperfect, and the loweſt lands, which lie ſome miles up the river, are frequently incommoded by the land floods.

On the confines of the Brue are two heath or turf bogs: one on the north ſide containing about three thouſand, and the other on the ſouth containing about ſix thouſand acres.

* Ten thouſand ſheep have been rotted in one year in the pariſh of Mark, before the incloſing and draining took place.

On

Bleadon Hill
Black
Rock
Uphill
Bleadon
Loxton
Proposed Cut
White House
River Axe
Lympsham
Brean
Berrow
E. Brent
S. Brent
Biddisham
Bagdworth
Mark
Lower Yeo
Burnham
Bridgewater Bay
BRISTOL CHANNEL
Brue
Proposed Cut
River
Huntspill
Pawlet
Polde
Parrett
Pyllmoor
5 Miles
Highest known Smooth Tide
High Spring Tide Level
Mean Level Neap Tide Level
Land
Summer
Water
Low water
Section in the Line a,b,c,d,e,f

A PLAN
for more effectually
DRAINING the TURF BOGS
and
FLOODED LANDS,
near the Rivers
BRUE and AXE,
in the County of
SOMERSET.

Wm White Surveyor Sand, near Wells 1794.

EXPLANATION.

The black Lines denote present Rivers and Drains.
The red Lines denote the proposed Amendments.
The Turf Bogs thus
The flooded Lands have a light Shade of Blue.
The Arrows denote the course of Water.
Towns.....as....GLASTON.
Parishes.....as....Street.
Villages.....as...Sand.
Hill.....thus

The new Outlet on the Brue, to be 20 Feet under the present, upon a similar Construction with the new Cyce, for draining Kings Sedgemoor.

The new Cuts together with the Old Drains, to be reduced to an inclined Plane, of a Foot in a Mile

Axe

A new Barrier with Sluices, near Hobb's Boat.

A new Cut from Lox Yeo, to White-house, and the River reduced to an inclined Plane.

Line a,b,c,d,e,f,g,h,i,k,l,m,n,o,p, *Vide Plan.*

Neele sculpt. 352 Strand

On theſe bogs ſcarce any paſturage at preſent grows.—They are a compoſition of porous ſubſtances, floating on water, and imbibing it like a ſponge. They are obſerved to riſe with much wet, and ſink in dry weather. The principal uſe to which they are appropriated is that of fuel to the ſurrounding pariſhes. As it is an object of the firſt importance to the country to have theſe bogs perfectly drained and conſolidated, I ſhall endeavour to ſuggeſt a plan whereby this deſirable effect may, in my opinion, be attained.

The cauſe of the inundation and drowning of this level ariſes from the outfalls being choaked up either by the collection of ſea-mud in the river, or by the elevated land lying between it and the Briſtol Channel. Of courſe, nothing more is neceſſary than a removal of thoſe obſtructions to the outfalls, which will open a free paſſage and quick current to the land water; this being effected, the turf-bogs, which are now five or ſix feet higher than the adjacent land, would ſubſide, and the porous earth become conſolidated, and fit for all the purpoſes of vegetation.

The annexed plan, drawn by Mr. WHITE, the ſurveyor, will ſufficiently explain the object in view, and excite the attention of all parties intereſted.

By the levels thus delineated, (the accuracy of which, I think, may be depended on) it appears, that the ſpring-tides are nearly on a level with the ſurface of the turf-bogs, and that by the propoſed outlet an additional fall of ten feet will be acquired. Such a drain, reduced to an inclined plane of a foot in a mile, would, in all probability, diſcharge all its ſtagnant waters.

A farther explanation is unneceſſary, as the plan will convey a more diſtinct idea of the general deſign than words.

The preſent outlet at Highbridge is not only of inſufficient depth, but is ſituate ſo far *inland*, that the ſlime and mud choak

choak up the river, and the current is not rapid enough to diſlodge the ſame.

I am aware that many of the proprietors of land in Huntſpill, Mark, &c. will object, under an idea that their lands will be made *too dry*, and that in the ſummer ſeaſon their ſtock will be deſtitute of water. But this objection, and indeed every other drawn from the apprehenſion of a too liberal diſcharge of water, may be obviated, by *placing hatches at the different bridges*, which will be neceſſary both for publick and private accommodation.

An improvement of ſuch magnitude cannot be effected without the authority of parliament; and all perſons receiving benefit muſt be burthened with a rate proportionate to the advantages derived. This aſſeſſment may be made by commiſſioners duly appointed, but ſubject to an appeal to the court of quarter-ſeſſions; and the drains, when finiſhed, ſhould be put under the view of the court of ſewers.

I will now endeavour to give a haſty ſketch of the probable coſt, and ſubſequent improvement: but in this I do not pretend to accuracy; ſuffice it to ſay, that the apparent benefit ſo far exceeds the utmoſt latitude of expence, that no ſolid objection can lie on that head.

Brent-

Brent-Marſh and the River Axe Drainage.

Dr.	£.
To act of parliament, gaining conſents, &c. —	400
To ſluice at letter *a* near the river Perrott ——	600
To twelve miles of new drain, average depth fifteen feet —— ——	12,000
To lowering river Brue three miles —	1,500
To purchaſe of land — ——	2,000
To bridges, hatches, &c. —— —	2,000
To ſluice on the Axe near Hobb's boat ——	500
To one mile and half of new drain —	1,500
To lowering the river Axe ſix miles ——	1,000
To purchaſe of land —— —	1,000
To commiſſioners, ſurveyor, &c. ——	2,500
	25,000
To balance of profit —— ——	331,250
	£.356,250
Cr.	
By 9000 acres turf bog improved, at the moſt moderate computation, 15s. per acre, making 6750l. per annum, twenty-five years purchaſe	168,750
By 15,000 acres of flooded land improved 10s. per acre, or 7500l. per annum, twenty-five years purchaſe —— ——	187,500
	£.356,250

On the ſide of the river Axe, the expence of a compleat drainage would not exceed five thouſand pounds; and there can be no doubt that the low lands near Axbridge, Cheddar, Nyland, Draycot, Rodney-Stoke, Weſtbury, &c. would be improved at leaſt four thouſand per annum. As a farther ſtimulus it might be urged, that the air would be rendered

dered more healthful, and the exhalations which now riſe from ſo large a body of ſtagnant water, and are wafted by the winds to the high corn-lands of the Mendip-Hills, to their great detriment, would be unknown.

Were the turf-bogs reclaimed and made productive, I think this diſtrict might be conſidered as one of the moſt fertile in the kingdom. The vales are formed principally by mud, carried down by the rivers which flow through it, and depoſited there by the tides oppoſing the current thereof. Many ages muſt have been required to effect this, but it is evident that the whole of this diſtrict is raiſed to a conſiderable height above its original level; and that the turf-bogs were in former days, dry and firm land, not ſubject to inundation from the ſea, or to the ſtagnation of the river waters; elſe, how can we account for timber trees of great dimenſions, both oak, fir, and willow, being found at the depth of fifteen or twenty feet, ſtanding in the ſame erect poſture in which they grew; and reeds and other paluſtrine plants, at the ſame depth and in the ſame poſture. Human bones, furze-buſhes, and nut-trees with nuts, have been found at the ſame depth. Now it is manifeſt, that neither furze nor nut-trees will grow under water.

It appears therefore probable, that the whole of this level was at a former period dry, firm land; and that by ſome violent convulſion of nature it became of a ſudden inundated.* This is in ſome degree confirmed by the extraordinary depth of the clay or ſound ground, on the verge of

* Some objections may be brought againſt this idea of ſudden inundation, from the upright poſition of the ſedge, as diſcovered in digging the Sedgmoor drains. Had this Moor been drowned by a ſudden flood, it is reaſonable to ſuppoſe the ſedge would have been proſtrated. J. B.

the

the *Highlands*; and it is well known, that in many parts of this kingdom the ſea has gained on the land, and in other parts the land has gained on the ſea.

The improvement of ſuch a tract of unproductive land would impart the moſt pleaſing ſenſations to the mind; and I verily think, that *two* grand drains, accompanied with proper lateral ditches, ſuch as I have now ſuggeſted, would increaſe the rent of this diſtrict eight or ten thouſand pounds per year.

The profit which has attended the improvement already practiſed during the laſt twenty years is, I ſhould think, a ſufficient incentive. Scarcely a farmer can now be found who does not poſſeſs a conſiderable landed property; and many whoſe fathers lived in idleneſs and ſloth, on the precarious ſupport of a few half-ſtarved cows, or a few limping geeſe, are now in affluence, and bleſſed with every needful ſpecies of enjoyment. Diſorders of the body, to which the ſtagnant waters heretofore ſubjected them, are now ſcarcely known: and the inhabitants for the moſt part arrive to a good old age.

SOIL.

The ſoil of theſe moors may be comprehended under four diviſions.

1*ſt*. Strong, dry, and fertile clay, of a conſiderable depth.

2*dly*. Red earth, of various depths, from one foot to ſix feet, covering the black moory earth of the heath.

3*dly*. Black moory earth on the ſurface, with a ſubſtratum of clay at various depths.

4*thly*, and *laſtly*. The turf-bog.

The firſt of theſe deſcriptions of land may be conſidered as of the beſt quality, being highly productive, and particularly ſo in a wet ſummer. If ſhut up early in the ſpring, it will

will produce from two to three tons of hay per acre. Its value may be eſtimated from two to three pounds per acre, and it is for the moſt part devoted to grazing.

It is no leſs remarkable than true, that this land will fat ſheep nearly as well in the winter as the ſummer, if not ſtocked more than one to an acre.

The vaſt advantage reſulting from the incloſure of the waſte lands in the pariſhes before enumerated, is ſo manifeſt, that whoever runs may read.

A moiety of the manor of Wedmoor might have been purchaſed, about twenty years ago, for twenty thouſand pounds. It is now worth ſeven thouſand pounds per annum. The improvements in Huntſpill, Mark, Mere, Glaſtonbury, Eddington, &c. &c. are nearly ſimilar. In the latter hamlet, ſingle rights of common, when incloſed, have been ſold for more than eight hundred pounds; and all this without any concomitant inconvenience. At firſt the ſcheme was highly unpopular, and its firſt promoters were on the eve of falling a ſacrifice to popular fury and reſentment, but by coolneſs and perſeverance they weathered the ſtorm: all parties are now ſatisfied, and acknowledge the wiſdom of the meaſure. Nor has the advance of the poor's rate been in any degree equal to what has been experienced in neighbouring pariſhes, where no incloſure has taken place, as will be ſhewn by the following ſtatement:

WEDMOOR.

Amount of poor-rate ſeven years previous to the incloſure £2132	Amount of poor-rate 7 years ſubſequent to the incloſure £2342

HUNTSPILL.

Ditto - - - - - 1561	Ditto - - - - - 2204

MARK.

MARK.

Ditto - - - - - - 1985 || Ditto - - - - - 2163

MERE.

Ditto - - - - - - 2016 || Ditto - - - - - 2170

An increaſed population neceſſarily accompanying ſuch an occupation of productive land, muſt inevitably be attended with a proportionate advance in the poor's levy; beſides, men cannot, in an inſtant, by any, even the ſtrongeſt incentives, be rouſed from a ſtate of ſloth to a life of labour and activity. To this may be added, that a great part of the extra levy ariſes *from the high demand for county ſtock*; and it is found that for ſeveral years paſt the rates are declining, notwithſtanding the poor are treated with much more liberality than heretofore.

The diviſion of property, on theſe lands, is effected by ditches eight feet wide at the top, three feet and half wide at the bottom, and five feet deep, which may be cut in the ſtrongeſt clay for twenty-pence per rope; and on the black ground and red earth at ſixteen-pence per rope, which is about one penny per cubic yard.

At theſe prices a good workman will, in the ſummer, earn three ſhillings per day, and in winter two ſhillings.*

Theſe rhynes diſcharge their waters into the rivers; and ſluices are occaſionally made to keep back water, in times of drought, for the uſe of the ſtock.

The graziers, on theſe ſtrong clays, are fond of large incloſures, and object to the planting any trees, or hedges; alledging as a reaſon, that they harbour flies, which teaze the cattle, and check their progreſs in fatting: trees alſo prevent a free circulation of air. Experience confirms the wiſ-

* Can any excavating machine execute this work at a cheaper rate?

dom

dom of this theory. Many alſo are of opinion, that one piece of forty acres will ſooner fat a given quantity of oxen, or ſheep, than two pieces of twenty acres each. All, however, do not agree in this ſentiment; and the opponents urge, that animals eat with greater reliſh, when frequently changed from one field to another, than when they are confined to one.

As no ſatisfactory experiments have ever (to my knowledge) been recorded on this ſubject, let us reaſon a few moments thereon.

It is difficult to decide in this caſe from *experiment*. Two pieces of land, perfectly alike in quality, or two ſets of ſtock, exactly ſimilar, cannot eaſily be found; we muſt, therefore, form our opinion from ſome other data. The argument made uſe of by the advocates for change is, "that of giving "the food to the cattle *freſh* and *freſh*;" but this ſeems not to be concluſive. Independent of the diviſion-fence (which occaſions a loſs of paſturage unfavourable to the ſmall allotments) there muſt be an equal number of blades of graſs in either caſe, and the cattle may vary their feeding as much in one inſtance as in the other; for in the large inclóſures they will not be ſeen in the evening where they were feeding in the morning. The grand enquiry is, *do the cattle*, or *do they not, conſume more graſs in one way than the other?* I think they do, and ſhall not heſitate (though with great diffidence) to give my opinion in favour of a change of food; and this for the following reaſons:

When an animal is turned into a piece of graſs, he takes a ſurvey of the whole field, for the purpoſe, I preſume, of ſelecting that kind of herbage which beſt pleaſes his palate.

This perambulation does not much injure the graſs, for if it be not very rank indeed (and graziers ſhould be careful that it be not ſo) it will ſoon riſe after the animal's tread.

He

He then becomes contented, and, during the time of his abode, feeds in the ſame manner as he would were the piece ever ſo large. After one or two months' reſidence in a large piece, the animal becomes diſguſted with his ſituation, and tired with his food; the graſs is tainted by his breath and by the effluvia of his dung; he bellows for change, and traverſes the field, conſuming, or rather deſtroying, more graſs with his feet than with his mouth.

In ever ſo large an incloſure (properly ſtocked) every part of the field is tainted with the breath of the animal ſome time or other in the courſe of twenty-four hours, and it is aſtoniſhing how ſoon they become diſguſted; in changing from field to field it is not ſo. Every fortnight or three weeks bring a ſupply of untainted food, which gratifies their palate, and a change of ſcene amuſes them, and increaſes their comfort and enjoyment.

The only manure ever put on theſe lands, is the contents of the drains and ditches; and this, with judicious management in the method of grazing, is ſufficient to keep them in unabating fertility.

Some of this clay land, when tilled, has been known to produce ten or twelve ſucceſſive crops of wheat, without an intervening fallow or fallow crop. I was ſhewn a field in the pariſh of Mark, which had growing in it the *nineteenth* crop of wheat; and I verily think the produce was not leſs than fifty Wincheſter buſhels per acre. No manure had been put on it during the whole time, ſave the contents ariſing from the cleanſing of the ditches. The ſtubble was mown every year, and carried off; two ploughings only were given it, after which the wheat was ſown in the months of November or December, under furrow, in eight-furrow ridges, after the rate of two buſhels and half per acre, chopping the clods, and ſmoothing the ſurface of the ridge with a ſpade.

The average produce per year, for the whole eighteen years, was eſtimated to exceed thirty-five buſhels per acre.

This aſtoniſhing fertility of ſoil can only be aſcribed to the invigorating principle of the ſaline particles with which the land is impregnated. They enable it to produce a ſucceſſion of crops, which in common land would reduce the ſoil to a mere *caput mortuum*.

Notwithſtanding this encouragement to tillage, the plough lies idle, and nineteen parts out of twenty remain in graſs, though it is apparent that the value of the land, in fee, might be gained in a few years.

The ſecond deſcription of ſoil found in this diſtrict, namely, a ſtrong red earth over a pure clay, poſſeſſes alſo many good qualities; it is neither ſubject to injury from an exceſs of wet weather, nor does it burn in a drought.

This ſoil, formed by a depoſit waſhed from the hills, may be conſidered as a fine vegetable mould, and, if tilled, is capable of bearing a variety of crops in the higheſt perfection. Its value is about forty-five ſhillings per acre, and its produce of hay about two tons.

Black moory earth is the third ſort of ſoil found in this level, and on it extraordinary improvements have been effected, by covering the ſurface with a thick coat either of clay or red earth.

In its natural ſtate it is in a great meaſure unproductive, yielding ſcarcely any herbage, ſave carnation graſs, ruſhes, and other aquatic productions. The deficiency of this ſoil ariſes from the want of tenacity. The beſt means of improvement is *compleat draining*, and after that a liberal covering with clay or red earth; theſe will freely incorporate with the ſoil, and make it ſufficiently firm. After ſuch improvement, no kind of land is more productive, particularly in a dry ſummer.

I have

I have this year ſeen land of this deſcription, ſpring-fed till the 12th of May, yield by the 24th of June two tons of hay per acre; and Mr. LAX, on his farm at Godney, has, for five years paſt, kept twenty cows and a bull throughout the year on thirty-five acres of land. His plan is to winter *hayne** fifteen acres. This, on an average of ſeaſons, is fit to be ſtocked the beginning of April, and is fed till the 12th of May. By this time the remaining twenty acres are in ſufficient ſtrength to take the cows, and will keep them till the after-graſs of his mown ground is fit to receive them; then the unfed graſs in the ſummer-leaze is *ſkimmed*, which yields from five to ten cwt. of hay per acre; this is given to the cows when they are dry, namely, in the months of December and January. After they have calved, which is from the beginning of February to Lady-Day, they are ſupplied with the beſt hay; here are more than thirty tons of hay produced, ſo that twenty cows cannot poſſibly want winter provender.

Not many years ſince this farm was part of an extenſive moor, incloſed by Act of Parliament, and was purchaſed by Mr. LAX, of the Commiſſioners, at fifteen pounds per acre, to which add five pounds per acre for draining and claying, making in the whole twenty pounds per acre, at five per cent. the rent will be twenty ſhillings per acre.

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* It is *old* Engliſh, and found in all books and laws relating to foreſts.

DEBTOR.	£.	s.	d.
To rent of thirty-five acres, at 20s. per acre	35	0	0
To taxes, highways, &c. — — —	1	5	0
To dairy women, and all other incidental expences, twenty-five ſhillings per cow — —	25	0	0
To expences making fifteen acres of hay, at twelve ſhillings per acre — — — —	9	0	0
Ditto ſkimming and making ſummer-leaze hay	3	0	0
To fences — — — — —	1	15	0
To intereſt of capital — — — —	7	10	0
	82	10	0
Profit	117	10	0
	£200	0	0

CREDITOR.	£.	s.	d.
By ſixty cwt. cheeſe, at fifty ſhillings per cwt.	150	0	0
By twenty calves — — — —	15	0	0
By butter — — — — —	15	0	0
By hogs — — — — —	20	0	0
	£200	0	0

Though the produce of cheeſe, in compariſon with the general produce of the county, was ſmall, it muſt not be ſuppoſed that the deficiency aroſe from any want of food, but principally from the cows being young, and of a ſmall breed.

The laſt ſpecies of ſoil is *the Turf Bog*.

The ſurface of this ſoil is of a light, ſpungy, tough texture, full of the fibrous roots of plants, and withal ſo matted together, that a ſpade or knife muſt be made very keen to penetrate

penetrate it. Immediately under the turf, or ſward, is found the vein of black moory earth, ſo unlike in its nature to the peat which lies underneath, that when cut with it, and dried, it will fall off and ſeparate from it.

This mould is of good quality, and will bear both natural and artificial graſs in great abundance. It is alſo an excellent manure for clay or any other heavy land. This black moory ſtratum is from one to two feet in thickneſs, and underneath is found the peat, which is from three to fifteen feet in depth.

Under the peat is a bed either of clay or ſand; the peat is full of flaggy leaves and hollow ſtalks of ruſhes. Theſe vegetable matters are accompanied with a ſubſtance like pitch, of a bituminous nature, which lies between the ſtalks of the ruſhes and the leafy remains, and conſtitutes the inflammable part thereof. It is uſed as the common fuel of the country, and makes a clean and pleaſant fire, particularly well adapted to the purpoſes of the dairy. An acre of land will furniſh an immenſe quantity, inſomuch, that in the pariſh of Catcott it has been ſold, for a term of twenty-one years, as high as thirty pounds.

There is no great difficulty in the mode of curing peat. In the months of May and June it is cut out with a keen inſtrument into the ſhape of bricks, left ſingle on the ground for a few days to dry, by which time they loſe part of their moiſture, and become firm enough for piling in pyramidal heaps of about a waggon load each; in this ſtate they are compleatly dried, and then ſell for ten ſhillings per waggon load on the land where they are dug; and the price of digging and carrying is five ſhillings per load. Though the outer covering or ſward of this boggy land will burn, yet it is not much eſteemed as fuel, being ſoon conſumed.

Before

Before I ſuggeſt a method of improving theſe bogs, let let me advert to the probable cauſe of their preſent ſterility. I conceive then, that ſtagnant water is the grand operative principle which has for ages kept the ſuperſtratum buoyant, and ſwimming as it were on its ſurface; this lifts up and ſwells the ſoil, making it ſhake and give way on treading. In confirmation of this idea, it is found, that at the depth of four or five feet the black earth becomes a mere pulp, in which an iron rod will deſcend with a trifling exertion to the ſurface of the clay; and it invariably happens, that the worſe the bog the deeper the clay.

In the third deſcription of land, ſtated at the beginning of this diſquiſition, the clay is found at the depth of three, four, or five feet, and gradually ſinks thence to the loweſt part of the peat bog, where it is found at the depth of eighteen or twenty feet. If, therefore, the ſurface of the two ſorts of land were equal, one foot of ſtagnant water on the clay of the former would be accompanied with fourteen or fifteen feet on the clay of the latter. Such a body of water continually remaining at all ſeaſons of the year, (for in the dryeſt ſummer I conceive its diminution does not exceed three or four feet) cannot fail of rendering the ſurface cold and unproductive.

Agreeably to this theory, the ſurface muſt riſe in the winter, and ſubſide in the ſummer months; and this is verified by fact, for certain fixed bodies are ſeen over the moor at certain ſeaſons, which cannot be deſcried at others.*

* Some may ſay that another cauſe, beſide that which is here given, might contribute to this phenomenon, viz. a copious fog at certain times hovering over the moor, by which ſome extraordinary refractions are known to take place, and exhibit the appearance of objects apparently *above* the horizon, which in reality are *below* it. A. C.

If

If theſe premiſes be admitted, it follows, that the only radical cure muſt be *compleat draining*, and after that, *burning the matted ſurface*; the *former*, I think, may be effected in the manner before ſtated, and the *latter* in the following way, without any great difficulty or expence.

In the months of March or April, when the land is dry, let it be ploughed as deep as ſix ſtrong horſes can plough it; this will coſt about twenty ſhillings per acre. In this ſtate let it remain till the ſod is dry enough to burn, then ſet fire to the plit as it lies, or elſe provide yourſelf with ſome keen cutting knives of about a foot in breadth, the cutting part of which ſhould be of a ſemicircular form; with theſe, let the plit be cut into parts of about two feet and a half in length, and let your burners reduce them to aſhes as faſt as poſſible, which being ſpread equally on the ſurface and ploughed in, ſow the ground about the middle of May with one buſhel and a half of buck-wheat per acre, two buſhels of ray-graſs, and five pounds of white Dutch clover. The coſt of all this will be nearly as follows per acre.

	£.	s.	d.
Firſt ploughing	1	0	0
Cutting the plit and burning	0	12	0
Spreading the aſhes	0	3	0
Second ploughing	0	5	0
Harrowing	0	1	0
One buſhel and half of buck-wheat	0	6	0
Two buſhels of ray-graſs	0	5	0
Five pounds of Dutch clover	0	4	0
Tithe	0	3	0
	£2	19	0

N. B. If the ſurface be very tough, it might be right to have *two* crops of buck-wheat.

Should

Should the ſubſequent ſummer be moiſt, it is probable that the produce of buck-wheat might be equal in value to the expenditure; but ſhould it even entirely fail, the artificial graſs will amply repay the expence and exertion of the huſbandman.

After the buck-wheat is harveſted, let lateral trenches be cut at the diſtance of thirty-five feet, emptying themſelves into the great drains; theſe trenches ſhould be twelve inches wide, and ſixteen inches deep, and will coſt about one penny per rope (twenty feet) or about five ſhillings per acre.

The contents of theſe trenches being for the moſt part black mould, will be excellent manure for the artificial graſs, and ſhould be ſpread thereon without delay. It might be adviſeable for the firſt year or two, either to mow or feed with ſheep, avoiding the tread of heavy cattle till the land has fully ſubſided; and if clay or red earth could be procured within a moderate diſtance, give it an occaſional ſprinkling therewith, after the rate of thirty or forty cart-loads per acre.

I have not the leaſt doubt but with this management, or with ſomething ſimilar thereunto, the turf-bogs might be all reclaimed, and made worth twenty-five or thirty ſhillings per acre. And as a proof thereof, I need only inſtance the vaſt improvements already made, and ſtill carrying on with unremitting aſſiduity, by Mr. MOXHAM, of Glaſtonbury, whoſe exertions in this way highly merit the warmeſt encomiums.

Without the aſſiſtance of the plough, he has, by draining and earthing, advanced land of the foregoing deſcription from one ſhilling per acre to thirty ſhillings. His expences, it muſt be allowed, are great, for he puts one hundred cart-loads, nay, in ſome inſtances, one hundred and fifty cart-loads of red earth per acre, which being halled one mile and a half or two miles, the coſt muſt be more than ten pounds

per

per acre; yet notwithſtanding this bountiful and expenſive manuring, the advance in the value of the land amply compenſates; for the original price of theſe bogs was two pounds per acre *in fee*, and many hundred acres may now be bought at that rate.

Mr. MOXHAM contends, that a covering of red earth, ſuch as he beſtows, is abſolutely neceſſary to kill the old ſward; and it muſt be admitted, that the end propoſed is effectually obtained; but then the land is for ſome time unproductive, and the expence is alſo ſo enormous, that few farmers would have courage to go through ſo coſtly an experiment.

How far the plan of proceeding, which I have before ſuggeſted, is or is not more eligible, I ſhall leave to Mr. MOXHAM and to my readers to determine.

Mr. MOXHAM has planted firs and alder hedges on theſe bogs with great ſucceſs, and has made various ſtriking improvements, to the great aſtoniſhment of his neighbours, who could not conceive ſuch things poſſible.

In ſhort, he is juſtly entitled to the thanks not only of the labouring poor, but alſo of the community, for his perſevering induſtry and activity.*

No

* This turbary-land, as it is called by the proprietors, is a portion of heath-moor appropriated for digging turf for fuel. It is dug out by the people of Glaſtonbury in pits of five or ſix feet deep, which are hollowed out on the ſides as far as they can do it with ſafety, leaving a cruſt on top of the part hollowed, which makes it very dangerous to walk over it. The people of Mark (the adjoining pariſh) dig their turf in ditches, which I think a better method. I have levelled about 70 acres of this turbary-land, by taking the ſward and ſufficient of the uppermoſt earth to fill up thoſe pits. This peat or turf earth, in its natural ſtate, is very ſoft; and thoſe pits, if not filled up, ſwell up from the bottom, and in twenty or thirty years will be ſufficiently ſolid to be cut for turf again. When they are levelled, they ſink down again into

No country can afford greater encouragement either to the grazing, dairy, or corn farmer, than this; the ſalubrity and mildneſs of the climate, and the fertility and ſtrength of the ſoil, enable the occupier to devote his land to either purpoſe with an almoſt certainty of ſucceſs; and the annual profit, over and above his rent, cannot fail, as a ſource of wealth and independence. The dairy farms are ſmall, ſeldom exceeding two hundred pounds per year; the grazing farms are large, and very detached.

It is obvious, that the profits of the dairy exceed thoſe of the grazier nearly in the proportion of two to one; and as one hundred pounds per year will afford a comfortable ſubſiſtence to a family, ſmall farms are beſt calculated to increaſe population, and to rear up an induſtrious race of independent yeomanry. Excepting the Biſhop of Bath and Wells, there are few proprietors who ſtand ſeized of more than ſix or eight hundred pounds per annum, and for the moſt part from one hundred to two hundred pounds per annum; and more than nine-tenths of the land are employed in paſture.

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into hollows, ſo that I have been obliged to level ſome of them again four, five, and ſometimes ſix times, before I could venture to lay on good earth. I have then covered the land with from one to two hundred put-loads of rich ſandy mould on an acre, ſuch as is dug out of the rivers, or left by thick floods on the ſides of the rivers, of a grey colour. This makes great improvement, produces a very good herbage, and by letting in on it from the river three, four, or five thick floods in the ſpring, on about fifty acres of it, (which I do by means of a double funnel or trunk of two feet ſquare each, without injuring my neighbours, having made flood-banks to keep it in) I have been able to make very good heifer-beef without their feeding on any other ground. Some part of this turbary-land I cannot flood; on this, when it is properly ſettled, I propoſe to put ſome heavy earth. This heath-moor turbary-land has been ſold in its original ſtate from about forty ſhillings to eight pounds an acre; the Weſthay turbary-land, in the adjoining pariſh of Meer, ſells for about forty ſhillings an acre.

WILLIAM MOXHAM.

The old arable was found not to pay for ploughing, and has therefore been laid down.

Some few farmers, however, have enriched themſelves by giving four pounds per acre for ſome rich dry and newly incloſed land, on which they have grown fifty buſhels of wheat per acre for ten years ſucceſſively, without fallow or manure of any kind.

Where there is ſo much to approve, I am ſorry there ſhould be any thing to condemn, but truth compels me to ſtate, that a ſhameful inattention prevails as to their breed of cattle; and ſcarcely can an inſtance be produced of a farmer's giving more than ten pounds for a bull, or three pounds for a ram; yet, notwithſtanding this general neglect, many are accuſtomed to ſell their home-bred team of four oxen, when fat, for one hundred pounds; and ſheep in great abundance, that weigh from twenty to thirty pounds per quarter. The elevated corn-lands were formerly in open common fields, but every effort has been made to divide and incloſe them; the tenure, however, (great part being under the ſee of Wells, and other churches, under charity endowments, and under queen ANNE's bounty) has operated as a check to the neceſſary exchanges. None of theſe common field lands will let for more than fifteen ſhillings per acre, whereas, if incloſed, they would let for twenty-five ſhillings.

Though there are many things in the practices of this diſtrict deſerving both commendation and imitation, I cannot help obſerving, that the proceſs of *making hay* is not among the number.

In this reſpect, they are the moſt egregious ſlovens I ever beheld. It is no unuſual thing to ſee cocks of about a load each remain in the fields two months after they are made; and before the rivers were lowered, and the country drained,

theſe

theſe cocks were frequently carried away by a ſudden flood. When conveyed to a large mow, no care is taken either in making or ſecuring it; it is ſeldom thatched; ſome indeed make their mows in a conical form, by which means they ſuffer but little injury, but for the moſt part they are left flat on the top, and the winter rains ſoak from the top to the bottom, without ſhame or regret on the part of the owner. In their ſummer paſtures they are equally ſlothful; docks, thiſtles, nettles, and other weeds, cover nearly a quarter of the land, and, wafted by winds, the ſeed is diſſeminated on the lands of their more careful neighbours. Ofttimes have I obſerved, that where nature is moſt bountiful, her gifts are leaſt prized. This is the caſe with the farmers here; ſo quick is vegetation, even in the winter ſeaſon, that the cattle (unleſs it be unuſually ſevere) ſcarce ever want a bite of graſs; and a deficiency of winter provender is ſcarcely known.

I preſume it is on the ſame principle that the Scotch gardeners excel the Engliſh; having more difficulties to encounter, their exertion and care are proportionate thereto.

THE SOUTH MARSH

Is bounded on the North-Eaſt by Polden-hills, on the South-Weſt by the river Parrett, on the North-Weſt by Bridgwater-bay, and on the South-Eaſt by Ham-hill, &c.

That part thereof which lies neareſt the ſea is higher than the interior part, owing to the great depoſit of ſea-mud left at the high ſpring-tides for ages paſt; and it is alſo better drained, in conſequence of being near the outlet, where the greateſt fall of draining exiſts. (This obſervation alſo extends to the lands of Brent-Marſh.)

The river Parret is the principal drain of this marſh. It has no *barrier*, and the tide flows up as far as Langport, filling

filling its banks, and frequently penning the land-floods over the moor, and meadows adjoining; ſo that near thirty thouſand acres of fine land are frequently overflown for a conſiderable time together, rendering the herbage unwholſome for the cattle, and the air unhealthy to the inhabitants. An act of parliament was lately obtained for draining a conſiderable part of this fenny plain called *King's-Sedgmoor*, which, together with the adjoining incloſed meadows now flooded, amount to about twenty thouſand acres. This deſirable end is nearly accompliſhed, by having the outlet or ſluice many miles lower, in the river Parret, than formerly. Nothing could be more unpopular, at its outſet, than this undertaking; and every obſtacle, which prejudice and ignorance could ſuggeſt, the promoters thereof had to encounter.

About the year 1680, King JAMES laid claim to the ſoil of this moor, and formed the deſign of improving it by a compleat drainage; but ſo perverſe were the owners of the adjacent lordſhips commoning with their cattle on it, that they oppoſed the ſcheme with all their might; and diſcerning that they could make no juſtifiable claim to the ſoil, offered to aſſign to the king four thouſand acres, in lieu of his right thereto, and to lay out the reſidue, being nine thouſand five hundred and twenty-two acres, among their lordſhips; which being accepted of by the king, there were allotments then made to each manor according to the following proportions:

Names

Names of Manors.		*Acres.*
Dunwear	To the heirs of Sir Robert Chichester, &c. ——	346
Stawell	To Sir John Stawell —	274
Sutton-Mallett	To John Mallett, esq; ——	234
Bawdrippe	To Walter Long, esq; —	218
Brogney	To Thomas Muttlebury, esq;	70
Middlezoy	To R. Warr, esq; Sir R. Strode, &c.	567
Moorlynch	To the heirs of Mr. Floyer —	354
Highham	To Henry Lord Gray ——	708
Netherham	To the heirs of Sir Ed. Hext —	264
Beere	To Sir William Courtney, &c.	229
Aishcotte	To Sir Thomas Cheeke —	526
Horsey	To Sir George Horsey ——	370
Chedzoy	To Earl Pembroke —	411
Weston	To Sir Peter Van Lore, &c. —	582
Othery	To Sir Edward Trent, &c. —	428
Somerton	To Tho. Hill, esq; James Rise, esq; and Burgesses, &c. —	1505
Graynton	To the heirs of Mr. Watts —	291
Pitteney	To Earl Northampton, and Sir J. Hanham ——	569
Compton-Dunden	To Sir J. Strangway, and Baronet Portman ——	548
Walton	To Sir Thomas Thynne —	540
Street	To Andrew Whittington, &c.*	488
	Total acres ——	9522
	Besides for the king —	4000

Memorandum. That these allotments are rated proportionably, after the rate of two hundred and eighty-two acres

* Dugdale.

of

of the moor (by the perch of fifteen feet) to every hundred acres of the ſeverals.

In the reign of *King William*, a ſimilar attempt was made. An act was obtained for draining it, but by ſome means or other its operation was entirely fruſtrated. This projected and uſeful improvement lay dormant till the year 1775, when it was revived by *Mr. Allen*, then member of parliament for Bridgwater. Sanguine of ſucceſs, and highly impreſſed with the idea of its importance, he purchaſed a large number of rights, and having obtained a ſignature of conſents, went to parliament; but not having intereſt enough in the houſe to ſtem the torrent of oppoſition, all his deluſive proſpects of profit vaniſhed, and he found himſelf left in a ſmall but reſpectable minority. Though Mr. ALLEN met with ſo warm an oppoſition, yet there were not wanting many lords of manors intereſted, who expreſſed their decided approbation of the meaſure, in a *general point of view*, but objected to the mode by which it was conducted, and to the men who were the oſtenſible movers in the buſineſs. After this defeat, nothing was done till the year 1788, when a meeting was held at Wells to take into conſideration the propriety of draining the ſaid moor, and dividing it into *parochial allotments*. At this meeting Sir PHILIP HALES preſided; and after much abuſe and oppoſition from the lower order of commoners, who openly threatened deſtruction to thoſe who ſupported ſuch a meaſure, the meeting was diſſolved without coming to any final determination.

The leading idea was, however, afterwards purſued, with great aſſiduity, by Sir PHILIP, and his agent Mr. SYMES of Stowey; and by their perſevering induſtry, and good management, matters were brought into ſuch a train, that application was made to parliament in the ſeſſion of 1790, for leave to bring in a bill for draining and dividing the

ſaid

ſaid moor into parochial allotments, among thirty pariſhes and hamlets therein ſtated; and alſo among ſuch other pariſhes as may prove a right to feeding the ſame. In the ſpring of 1791, this bill paſſed into a law; and the commiſſioners, acting under the powers thereof, held their firſt meeting at Bridgwater in June 1791.

I have been thus particular in ſtating the progreſs of this buſineſs, merely to ſhew the impropriety of calling publick meetings, with a view of gaining ſignatures of conſent, or taking the ſenſe of the proprietors in that way. At all publick meetings of this nature, which I ever attended, noiſe and clamour have ſilenced ſound ſenſe and argument. A party generally attends with a profeſſed deſign to oppoſe, and truth and propriety have a hoſt of foes to combat.

Whoever, therefore, has an object of this kind in view, let him acquire conſent by *private application*; for I have frequently ſeen the good effects thereof manifeſted, by the irreſiſtible influence of truth, when coolly and quietly adminiſtered; and it has frequently happened, that men, hoſtile to your ſcheme, have, by diſpaſſionate argument, not only changed their ſentiment, but become warm partizans in that cauſe which at firſt they meant to oppoſe.

This never could have been done at a publick meeting; for after men have once joined the oppoſition, their pride will not permit them to retreat.

How far the commiſſioners appointed under this act have diſcharged their truſt, time will ſhew; but the general opinion of their conduct ſeems to be flattering; and thoſe who at firſt ſuppoſed that the act carried with it the ſeeds of its own diſſolution, are brought to confeſs, that the preſent appearances are highly promiſing.

It cannot but be ſuppoſed, that in the inveſtigation of four thouſand and ſixty-three claims, (of which only one thou

ſand

ſand ſeven hundred and ninety-eight are allowed) and in making compenſation for a large portion of land, neceſſarily cut through in making the great drain, many cauſes of offence muſt be given; but, I truſt, neither partiality, negligence, nor corruption, can be imputed to them; and if they have erred, it has been an error of the head, and not of the heart.

Previous to the preſent drainage, this moor emptied itſelf into the river Parrett, ſome miles above Bridgwater, and the fall from the moor was very trifling. Hence it followed, that the leaſt flood covered it with water, and in that ſtate it frequently remained many months. It was at firſt ſuggeſted, by many people whoſe abilities the county held in high eſtimation, that nothing more was neceſſary for the purpoſe of draining the moor, than the opening and widening theſe old outlets; but it occurred to the commiſſioners, that ſuch a partial and ineffectual mode of procedure could not produce a radical cure. They therefore ſet themſelves about to diſcover a convenient place of diſcharge lower down in the river, by which a greater and more rapid deſcent might be gained.

An old ſluice, called Dunbald-Clize, preſented itſelf as the deſired ſpot; and on levels being taken by Mr. WHITE, an eminent ſurveyor, it appeared that an extraordinary fall of nearly ten feet could be acquired; and that the deſcent from the upper part of the moor to this outlet, (a diſtance of about twelve miles) was nineteen feet, or about one foot and a half in a mile. The only objection which could be brought to the meaſure, aroſe from a conſideration of the great expences which muſt be incurred by cutting through two miles and a half of elevated land.

No alternative, however, preſented itſelf. It appeared that this plan muſt be adopted, or the work would be incomplete.

Juſtifiied therefore by the concurrent opinion of Mr. WHITE, and of Mr. JESSOP, (whoſe advice was taken) they proceeded boldly; and having erected at a great expence, and under numerous difficulties, (ariſing from the moraſſy nature of the ground on which it was built) a ſtrong ſubſtantial *ſluice*, they proceeded to make a channel or cut fifteen feet deep, ten feet wide at the bottom, and fifty-five feet wide at the top.

It is impoſſible to deſcribe the ridicule which this undertaking excited. Some thought the commiſſioners mad; others, and by far the majority, aſcribed the boldneſs of the plan to the liberality of the proprietors, in allowing the commiſſioners three guineas per day for attendance and management; and drew this ſage concluſion, that the work would never be finiſhed, but would be protracted till the expences *would equal* the value of the moor.

Uninfluenced by letters, or by menaces, the commiſſioners perſevered; and they have the ſatisfaction of ſeeing the principal difficulties overcome; and of hearing thoſe very men, who were moſt violent againſt the meaſure, acknowledge their error, and candidly confeſs that the work is well executed, and promiſes to be effectual.

It may be neceſſary, by way of inſtruction to others engaged in ſchemes of the like nature, to ſtate, that had the drain been made leſs wide at the top (and the opponents inſiſted that it ſhould have been only twenty-ſix feet wide) it would have collapſed, or fallen together; as it was, there were numerous and alarming ſlides, the repairing of which coſt a conſiderable ſum, and there can be no doubt, but ſomething of this kind will happen for years to come; for the ſubſtratum, at the depth of ſixteen feet, is ſo ſoft and moraſſy, that it gives way to the ſuperincumbent clay, and riſes up in the middle of the drain.

This

This cut from the Dunbald ſluice to the moor (a diſtance of about two miles and a half) coſt four-pence per cubic yard, or in the whole about three thouſand two hundred pounds; and the parochial drains, which were twelve feet wide at the top, four feet wide at the bottom, and ſix feet deep, coſt on an average two ſhillings and ſeven-pence per rope (twenty progreſſive feet.) Expenſive as this undertaking inevitably muſt be, yet the benefit reſulting from it will moſt amply repay; for without ſaying any thing of the injury done to the health of the inhabitants in the circumadjacent country, and which this drain, by rendering the air more ſalubrious, will totally remove; we may fairly ſtate, that the probable improved value cannot be eſtimated at leſs than four hundred and fifty thouſand pounds.*

The total amount of the expenditure is now aſcertained; and it may give ſome ſatisfaction, if I inform my readers the ſum total thereof. The following ſtatement of the account *Dr.* and *Cr.* will approach pretty near the truth; but let it be underſtood, that this calculation is made under the idea of *parochial ſubdiviſions*, without which little benefit will reſult either to the publick or individuals. The principles which I have, in my report on the North-Eaſt diſtrict, fixed as *data*, *incontrovertible*, *viz.* That all commons, however rich and fertile the ſoil, are unproductive of profit, in conſequence of *overſtocking*, muſt be here adhered to; and this argument is equally applicable to old incloſures. Let a farmer put *ten* head of cattle into a given piece of ground where only *five* ſhould be depaſtured, and the cattle will be

* If we add to this the capital neceſſary to ſtock this moor, the publick utility and importance of the undertaking will be more ſtrongly manifeſted. J. B.

of leſs worth after the graſs is conſumed, than they were before: Of what value then is the land?

KING'S-SEDGMOOR.

Dr.	£.	s.	d.
To act of parliament, and all other incidental expences	1,628	15	0
Intereſt of money borrowed	3,239	4	11
Commiſſioners	4,314	7	8
Clerk	1,215	19	0
Surveyor	908	12	6
Printers	362	6	3
Petty expences	575	11	1
Land purchaſed	2,801	4	11
Drains, ſluices, bridges, and roads	15,418	2	8
Awards and incidentals	1,160	0	8
	31,624	4	8
To which add for ſubdividing in each pariſh	28,000	0	0
To original value of the moor, ſay 10s. per acre, at twenty-five years purchaſe	150,000	0	0
	209,624	4	8
Profit	365,375	15	4
	£. 575,000	0	0

Cr.	£.	s.	d.
By 12,000 acres, at 35s. per acre, and 25 years purchaſe	525,000	0	0
By improvement of 4000 acres of adjacent land, at 10s. per acre	50,000	0	0
	£. 575,000	0	0

The

The above is the real expenditure taken from the commiſſioners books, and about ſeven hundred acres have been ſold to diſcharge the ſame.

N. B. Had the commiſſioners been empowered to ſell land at the commencement of the buſineſs, the expenditure would have been reduced five thouſand pounds by the difference in the intereſt accompt.

This is not the only improvement, for by the addition of ſuch a quantity of rich and productive graſs land, the upland incloſures, and common fields, may be greatly advanced in value. In ſhort, it is difficult to point out all the benefits likely to accrue from this grand but arduous undertaking; beſide, though the original value of the moor per acre is ſtated to be ten ſhillings, this is done merely with a view to give the arguments againſt the incloſure the greateſt weight; and perhaps it would have been more juſt to have ſtated its value at five ſhillings per acre, or even leſs than that, for a right of ſtocking could be rented for half a guinea per year.

Nor is the improved value at all exaggerated. On the contrary, I am confident it will exceed thirty-five ſhillings per acre; for even in dry ſummers three tons of hay per acre have been cut on incloſed lands adjoining or near the moor, the ſoil of which lands is in no reſpect better than that of the moor.

Beſides King's-Sedgmoor, there are other ſimilar tracts of land on the adjacent rivers Tone and Yeo, on which no improvement has yet been attempted, namely, Normoor, near North-Petherton; Stanmoor, Currymoor, Weſt-Sedgmoor, &c. near North-Curry; Weſt-Moor, near Kingſbury; Wet-Moor, near Muchelny;* amounting in the

* Moſt of theſe moors are now (1797) incloſed or incloſing.

whole

whole to about ten thouſand acres, independent of many thouſand acres of low flooded incloſed lands, which might be greatly improved by judicious draining.

Many of theſe moors are ſuperior in their quality to King's-Sedgmoor; and the example now ſet before them will, I truſt, remove the miſt from the proprietors' eyes, and make them ſee, in a true light, their own and the publick intereſt.

Theſe lands would be fairly worth forty ſhillings per acre the moment they were drained and divided; and if taken from the tenants, the original eſtates would not be reduced in their annual value one farthing.

But on this ſubject, I have before enlarged very fully, and ſhall, therefore, only remark, to thoſe who are influenced by a humane regard to the right and comfort of the cottager, that very few habitations of that deſcription are to be found near theſe moors; and a great part of thoſe which do exiſt, poſſeſs rights, which, when divided, may be worth two or three hundred pounds; and if ſold, will enable a man to rent an eſtate of one hundred pounds per annum, and to keep twenty or thirty cows, in the management whereof his whole family would become uſeful; and habits of induſtry, care, and œconomy, would by degrees be eſtabliſhed.

Adjoining this extenſive plain on the South ſide, lies a tract of elevated land, compoſed principally of ſea ſand and ſhells, well adapted to the purpoſes of tillage, and in its nature ſo fertile, that potatoes, turnips, carrots, hops, madder, liquorice, and indeed almoſt every root or plant uſeful in huſbandry, might be grown on it in high perfection.

The arable is for the moſt part in common fields, and though exhauſted by conſtant cropping, lets for near thirty ſhillings per acre. The wheat produced is of prime quality; and as to barley, it is ſuppoſed that Chedzoy, Weſton-Zoyland,

land, Middlezoy, and Othery, produce the beſt in the county. Were the common field lands of theſe pariſhes divided into ſeparate property,* a portion of the new allotments in Sedgmoor annexed, and the whole comprized in farms of four or five hundred pounds per year, and let to ſome enlightened ſheep and turnip farmers, theſe pariſhes might vie with any in the kingdom, both as to the *quantity* and *quality* of produce; but this cannot be effected whilſt the lands are held by the preſent tenure. They are now occupied by ſmall farmers holding under lives, ſome one life, ſome two, and a few three, and in ſome inſtances without any power or proſpect of renewing.

The declivities of the hills, North and Eaſt of Sedgmoor, are as barren as thoſe before ſtated are productive. The finer particles of the ſoil have for ages been waſhed into the moor by heavy rains; and the remaining mould is ſhallow and ſterile. When the moor is drained and made productive, this loſt fertility may be in ſome degree reſtored, by carrying the produce of the moor to the uplands, either by the ſheep-fold, or by conſuming the hay thereon.

A great part of theſe high lands are in tillage, but the expence of ploughing is ſo great, and the produce ſo ſmall, that it is matter of aſtoniſhment to me how the farmer can gain a livelihood. Somerton and Compton-Dundon, two conſiderable pariſhes to the Eaſtward of Sedgmoor, are for the

* An attempt was lately made by the inhabitants of Weſton-Zoyland to divide and incloſe their common arable fields by act of parliament, but the ſame was violently oppoſed by the biſhop of Bath and Wells, under the idea that the tithes would be reduced by the application of the land to graſs inſtead of corn. To ſubvert this doctrine, which I conceive to be illiberal and oppreſſive, I will be bold to aſſert, that *one half* the quantity would, under a ſyſtem of improvement, produce more corn than the *whole* does now.

moſt

moſt part the property of the Earl of Ilcheſter; and I know no pariſhes in the county ſo ſuſceptible of improvement. The arable lands in common field lie ſo detached and divided, and the eſtates, farm-houſes, &c. are on the whole ſo badly diſpoſed, that vaſt improvements might be made by judicious exchanges, and by a proper arrangement of the property. The ſoil is naturally good, and around the town of Somerton is a multitude of gardens, which ſupply the adjacent markets, even ſo far as Wells and Shepton-Mallett, with early peaſe, beans, potatoes, &c. and in the month of Auguſt with cucumbers by cart-loads; theſe they raiſe on hillocks, under which is placed about two buſhels of *horſe-dung*, collected in King's-Sedgmoor by children, and brought to their gardens on the backs of, or drawn in carts by, aſſes.

There is a large market held every three weeks at Somerton during the ſummer months, and to it is brought an immenſe number of ſheep, principally of the Dorſet breed, together with oxen and other cattle; theſe are purchaſed by graziers occupying the rich graſs land of the county.

On the ſummit of Polden-hill the corn land is for the moſt part in common fields, and under the following courſe of huſbandry: wheat, beans, fallow. The general produce of wheat twelve buſhels per acre, and of beans the ſame; very little barley or oats; but in the incloſed fields clover and vetches thrive exceedingly; and if the farmers were to have more of theſe articles, and plough leſs, they would find their account in ſo doing; for nothing will bring a farmer to poverty ſo ſoon as *poor corn land.*

From the nature of the ſtone on the ſurface, as well as from ſome trials lately made with the borer, I have reaſon to think, that on the Northern declivity of Polden-Hill may be found a vein of marl which paſſes through the pariſhes of Coſſington, Chilton, Eddington, Catcott, Shapwick, and Aſhcott,

Aſhcott, and from thence extends to Butleigh and Kingſweſton.* Should it prove of good quality, the diſcovery will be highly important, and be the means of advancing the lands to treble their preſent value. This marl has been tried at Butleigh and Kingſweſton, and I believe with ſucceſs.

It is not improbable that the ſame vein extends to Yarlington near Caſtle-Cary, where it has been dug and uſed with great advantage by J. ROGERS, eſq; whoſe improvements both in agriculture and planting are very meritorious.

I cannot paſs over this neighbourhood without noticing the pleaſant and fertile pariſh of Caſtle-Cary, which, both in reſpect to ſoil and climate, cannot well be excelled. I could wiſh ſome ſpirited agriculturiſt would here try, whether the excluſive power of growing hops is confined to Hants, Kent, Worceſter, and a few other counties. The luxuriancy of the wild hop, the richneſs and depth of the ſoil, the mildneſs of the climature, and the ſecurity from violent winds, all conſpire to render ſuch a ſpeculation promiſing. The conſumption of the county in this article is immenſe, and I have no doubt but I could ſelect in different parts of it many hundred acres, as well adapted to this culture as any lands at Farnham, and at one-fourth the price which is there given; beſides a much eaſier acceſs to manure of all kinds, and a greater and cheaper ſupply of poles.

In Caſtle-Cary potatoes are grown on a very large ſcale, and it is no unuſual thing to get one hundred and ſixty ſacks (two hundred and forty pounds each) per acre, the average price about five ſhillings per ſack.

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* There is likewiſe marl (but never much worked) about Doulting and Cranmore, and perhaps in various other parts of this diſtrict.

MINERALS, &c.

Many attempts have been made in different parts of this diſtrict to find *coal*, and pits to a conſiderable depth have been ſunk at Glaſtonbury, Chard, and other places, but no regular vein can be found; and it is the univerſal opinion of intelligent colliers, that there is no coal South of Mendip-Hills. Indeed ſome will ſay, that the ſtrata run in a regular direction from South to North, through the whole kingdom of Britain.

WATER.

Irregation is but little practiſed in this diſtrict; there is, indeed, near the town of Ilminſter, ſome land watered with the waſh of the town, the good effects of which are manifeſt.

Some of the marſh-farmers alſo, on the river Brue, cut openings in the banks of the river in the winter months, and overflow their land with the thick water deſcending from the hills.

This practice is certainly right.

CHAPTER III.

BUILDINGS.

THE old farm-houſes are ill-conſtructed and improperly ſituated, but *new* ones are much improved in point of uniformity, regularity, and convenience. Too much attention cannot be paid to this branch of rural management. Inſtead of being placed in vales, and at ſome extreme part of the eſtate, the farm buildings ſhould be ſituated on ſome high and central ſpot, ſo that the produce of the manure ariſing therefrom, may be conveyed to and fro at the leaſt poſſible expence and trouble. So ſituated, the running of the yard, ſtables, &c. might be collected in a reſervoir, and diſcharged from thence over the paſtures with great eaſe and advantage. Lime alſo might be occaſionally thrown into the reſervoir, ſtirring it well previouſly to its being diſcharged on the land. The benefit to be derived from ſuch a practice is inconceivable.

Convenience in the diſpoſing and connecting of the buildings is alſo of material conſequence. The ſtraw-yards ſhould be placed at the front and backſide of the barn, and the ſtack-yards at each end. The barn ſhould be filled through an aperture or ſheaf-hole, and not in the uſual way by waggons drawn on the floor to the great injury of the ſame. Granary (if any be neceſſary, which I much doubt, as all corn ſhould go to market as ſoon as threſhed) ſhould be over the waggon-houſe. The hog-ſties and poultry-yard as near as poſſible to the dairy. The ſtable detached from the other buildings for fear of fire. In ſhort, every thing about the farm ſhould be ſo contrived and diſpoſed that the buſineſs may be done with the greateſt poſſible eaſe and diſpatch.

CHAPTER IV.

MODE OF OCCUPATION.

THE greateſt part of that rich tract of land, called Brent-Marſh, was, a few centuries ago, either the property of the Crown, or of the Abbey of Glaſtonbury. Many of theſe manors have been ſince diſmembered, and I believe we may now ſay, that half this country is occupied by the owners.

The following tables of Mr. RICHARD LOCKE, of Burnham, will ſhew the great advance in the value of the land in the courſe of forty years.

No. I.

Valuation in 1755.

Quality of the Land.	*Price per Acre.* £.	s.	d.
No. 1 —	1	5	0
2 —	1	2	6
3 —	1	0	0
4 —	0	17	6
5 —	0	15	0
6 —	0	12	6
7 —	0	10	0
8 —	0	5	0
9 —	0	2	6

No. II.

Valuation in 1796.

Quality of the Land.	*Price per Acre.* £.	s.	d.
No. 1 —	3	10	0
2 —	3	5	0
3 —	3	0	0
4 —	2	15	0
5 —	2	10	0
6 —	2	5	0
7 —	2	0	0
8 —	1	15	0
9 —	0	10	0

The ſame Mr. LOCKE adds, that every marſh farmer, occupying two hundred acres of land, does, or at leaſt ought to grow, twenty acres of wheat, milk twenty cows, and feed twenty oxen and heifers, beſides ſheep and other cattle. And to ſhew the vaſt influx of wealth to this country, he engages

to

to name fifty farmers, within the diſtance of a few miles, worth ten thouſand pounds each, on an average, of their own or their father's getting, within the ſpace of fifty years paſt.

In the middle part of this diſtrict there are many large proprietors, and rent is univerſally paid in money, without any perſonal ſervice: great confidence exiſts in the Eaſtern part of this diſtrict, viz. about Wincanton, Horſington, &c. between the landlords and tenants. Eſtates are there principally held on mere *verbal* engagements, and ſcarce an inſtance can be produced of a breach of faith on part of the landlord, or ſuſpicion on the part of the tenant.

Between Yeovil and Taunton, including the pariſhes of Martock, Puckington, Barrington, Kingſbury-Epiſcopi, Lambrook, South-Petherton, Ilminſter, Hinton St. George, and the adjacent places, lies a tract of ſtrong loamy land, from ſixteen to thirty inches deep, on a ſubſtance of clay: a more pleaſant country can rarely be found. The proprietaries are large, and the eſtates are moſtly held by lives, under the lords of the fee: there are, however, many freeholders who poſſeſs from one hundred to ſeven hundred pounds per annum.

The farms are from forty to ſix hundred pounds per annum, and are compoſed partly of rich grazing and dairy land, worth from thirty to forty ſhillings per acre; partly orchard, from two pounds to three pounds ten ſhillings per acre. Sheep-walks, from fifteen ſhillings to twenty-five per acre; and the arable, from twenty ſhillings to twenty-five ſhillings per acre.

The rich paſture land is partly grazed with heifers, and partly devoted to the dairy. Few farmers milk their own cows, but let them out to a claſs of people, ſcarcely known in other counties, called *dairy-men*. A herd, of a good breed,

breed, will now let for ſeven or eight pounds per cow; a certain portion of land is devoted to their ſummer keeping, and a ſufficient quantity of hay is provided by the farmer for their winter ſuſtenance.

This practice of letting dairies muſt have originated either from *pride* or *indolence* on the part of the farmer's houſhold, and ought, in my opinion, to be checked by the landlord.

When the female part of a farmer's family is unemployed, (and, without a dairy, that muſt be the caſe throughout great part of the year) diſſipation, folly, and extravagance, take the lead, and domeſtick care and induſtry are entirely forgotten. Gentlemen of fortune ſhould therefore ſet their faces againſt the practice, and reſolve never to let an eſtate to a farmer whoſe family was too proud, or too indolent, to undertake the management of the different departments thereof.

LEASES.

The rack-rent leaſes are generally for ſeven years, and the covenants confine the quantity of land in actual tillage, the number of crops, the mode of feeding, to ſpend the produce on the premiſes, to ſell no hay, not to plough the meadow or paſture land, not to relet without conſent, and for want of aſſets to re-enter.

There are few things that operate as a more powerful check to an improved agriculture than *ſhort leaſes*; and it were to be wiſhed, that all lords of manors, poſſeſſing eſtates leaſed out on lives, would continue to grant renewals; and by ſo doing, I verily think, they would promote their own intereſt; for though it muſt be acknowledged, that the leaſing out a property upon three lives, at the uſual price of fourteen or fifteen years purchaſe, is unfavourable to the intereſt of the *grantor*, yet I think, that when an eſtate has been ſo leaſed out, it is more his intereſt to renew, than to run againſt

againſt the lives; for if compound intereſt of money be ſet againſt the reverſionary income, the latter is ſoon ſwallowed up. Great advantages would alſo reſult to ſociety from the general adoption of ſuch a meaſure; for it is well known, that eſtates falling into hand, are greatly reduced in value, let the reſtrictions in the leaſe be ever ſo judicious. In confirmation of this idea, do we not ſee that lands held under the church, under corporations, and under charity endowments, &c. *where renewal is certain*, are nearly in as good a ſtate as freehold property, and eaſily to be diſtinguiſhed from lands held under private lords, where ſuch renewal is frequently withheld. Various are the opinions reſpecting the comparative advantage attending the purchaſe of freehold and leaſehold property. In favour of the former, the natural, and indeed laudable pride of man ſteps in, and decidedly determines. Moſt men wiſh to poſſeſs property independent of all controul; and the ſuits and ſervices exacted under many leaſes, are a relict of feudal tyranny, highly diſguſting to men fond of freedom and independence; but let us have recourſe to figures, and we ſhall find that two men ſtarting together *with one thouſand four hundred pounds each*, and purchaſing, the one a freehold eſtate, of fifty-ſix pounds per annum, at twenty-five years purchaſe, and the other a leaſehold for three lives, of one hundred pounds per annum, at fourteen years purchaſe, would be in very different ſituations at the end of twenty-one years. Calculating the intereſt of each at five per cent. and allowing *three* renewals, at two years purchaſe, (clear income) the leaſeholders eſtate, of one hundred pounds per annum, (nett) would, at the expiration of twenty-one years, coſt him 1205l. 18s. and the freeholders eſtate, of fifty-ſix pounds per annum, (nett) would, at the expiration of the ſame term, coſt him 1900l. 1s. as the following calculation will confirm.

FREE-

FREEHOLD, 56*l. per annum, (net) and* 25 *years purchaſe.*

	£.		
	1400	0	
Add Intereſt	70	5 per cent.	
	1470	0	
Deduct rent	56	0	
	1414	0	1ſt yr.
Add Int.	70	14	
	1484	14	
Deduct rent	56	0	
	1428	14	2d yr.
Add Int.	71	9	
	1500	3	
Deduct rent	56	0	
	1444	3	3d yr.
Add Int.	72	4	
	1516	7	
Deduct rent	56	0	
	1460	7	4th yr.
Add Int.	73	0	
	1533	7	
Deduct rent	56	0	
	1477	7	5th yr.
Add Int.	73	17	
	1551	4	
Deduct rent	56	0	
	1495	4	6th yr.
Add Int.	74	15	
	1569	19	
Deduct rent	56	0	
	1513	19	7th yr.

Brought up	1513	19	
Add Intereſt	75	14	
	1589	13	
Deduct rent	56	0	
	1533	13	8th yr.
Add Int.	76	14	
	1610	7	
Deduct rent	56	0	
	1554	7	9th yr.
Add Int.	77	14	
	1632	1	
Deduct rent	56	0	
	1576	1	10th yr.
Add Int.	78	16	
	1654	17	
Deduct. rent	56	0	
	1598	17	11th yr.
Add Int.	79	19	
	1678	16	
Deduct rent	56	0	
	1622	16	12th yr.
Add Int.	81	3	
	1703	19	
Deduct rent	56	0	
	1647	19	13th yr.
Add Int.	82	8	
	1730	7	
Deduct rent	56	0	
	1674	7	14th yr.

Brought

	£.	s.	
Brought up	1674	7	14th yr.
Add Int.	83	14	
	1758	1	
Deduct rent	56	0	
	1702	1	15th yr.
Add Int.	85	2	
	1787	3	
Deduct rent	56	0	
	1731	3	16th yr.
Add Int.	86	11	
	1817	14	
Deduct rent	56	0	
	1761	14	17th yr.
Add Int.	88	2	
	1849	16	

	£.	s.	
Brought up	1849	16	
Deduct rent	56	0	
	1793	16	18th yr.
Add Int.	89	14	
	1883	10	
Deduct rent	56	0	
	1827	10	19th yr.
Add Int.	91	7	
	1918	17	
Deduct rent	56	0	
	1862	17	20th yr.
Add Int.	93	4	
	1956	1	
Deduct rent	56	0	
	1900	1	21st yr.

Freeholder's purchaſe of fifty-ſix pounds per annum, nett, allowing five per cent. compound intereſt, ſtands him at the end of twenty-one years in £1900 1 0

Firſt purchaſe - - -	1400	0	0
Loſs	500	1	0

LEASEHOLD, 100*l. per annum, nett, and* 14 *years purchaſe.*

	£.	s.	
	1400	0	
Add Intereſt	70	0	
	1470	0	
Deduct rent	100	0	
	1370	0	1ſt yr.
Add Int.	68	10	
	1438	10	
Deduct rent	100	0	
	1338	10	2d yr.
Add Int.	66	19	
	1405	9	
Deduct rent	100	0	
	1305	9	3d yr.
Add Int.	65	5	
	1370	14	
Deduct rent	100	0	
	1270	14	4th yr.
Add Int.	63	11	
	1334	5	
Deduct rent	100	0	
	1234	5	5th yr.
Add. Int.	61	14	
	1295	19	
Deduct rent	100	0	
	1195	19	6th yr.
Add Int.	59	16	
	1255	15	
Deduct rent	100	0	
	1155	15	7th yr.

	£.	s.	
Brought up	1155	15	7th yr.
Add renewal 2 yrs. purch. nett rent	200	0	
	1355	15	
Add Int.	67	16	
	1423	11	
Deduct rent	100	0	
	1323	11	8th yr.
Add Int.	66	4	
	1389	15	
Deduct rent	100	0	
	1289	15	9th yr.
Add Int.	64	10	
	1354	5	
Deduct rent	100	0	
	1254	5	10th yr.
Add Int.	62	14	
	1316	19	
Deduct rent	100	0	
	1216	19	11th yr.
Add Int.	60	17	
	1277	16	
Deduct rent	100	0	
	1177	16	12th yr.
Add Int.	58	18	
	1236	14	
Deduct rent	100	0	
	1136	14	13th yr.

Brought

	£.	s.	
Brought up	1136	14	13th yr.
Add Int.	56	17	
	1193	11	
Deduct rent	100	0	
	1093	11	14th yr.
Add renewal	200	0	
	1293	11	
Add Int.	64	14	
	1358	5	
Deduct rent	100	0	
	1258	5	15th yr.
Add Int.	62	18	
	1321	3	
Deduct rent	100	0	
	1221	3	16th yr.
Add Int.	61	1	
	1282	4	
Deduct rent	100	0	
	1182	4	17th yr.
Add Int.	59	2	
	1241	6	

	£.	s.	
Brought up	1241	6	
Deduct rent	100	0	
	1141	6	18th yr.
Add Int.	57	1	
	1198	7	
Deduct rent	100	0	
	1098	7	19th yr.
Add Int.	54	18	
	1153	5	
Deduct rent	100	0	
	1053	5	20th yr.
Add Int.	52	13	
	1105	18	
Deduct rent	100	0	
	1005	18	21st yr.
Add another renewal	200	0	
	1205	18	

Leaſeholder's purchaſe of one hundred pounds per annum, (nett) allowing five per cent. compound intereſt, ſtands him at the end of twenty-one years (admitting three renewals at two years purchaſe nett income) in the ſum of £1205 18

Profit — — 194 2

Firſt purchaſe — 1400 0

Free-

	£.	s.	d.
Freeholder's loſs at five per cent. ——	500	1	0
Leaſeholder's profit at ditto ——	194	2	0
Difference —— £.	694	3	0

N.B. A deduction ſhould be made from Leaſeholder's profit, for lord's rent and heriots, and ſomething from freeholder's loſs, for increaſing value of timber; but theſe will not be ſufficient to invalidate the general concluſions.

The great cauſe why leaſeholds are held in low eſtimation by the commonality, ariſes from the improvidence of the general holders, who for the moſt part expend the whole income of their eſtates, without laying by a fund for the purpoſe of renewal; hence it follows, that their eſtates fall into hand, and the owners are reduced from a ſtate of comparative affluence to beggary; at which event, the general exclamation is, *Who would have leaſehold property?*

CHAPTER VII.

ARABLE LAND.

Flax and Hemp.

FLAX.

IN the rich fertile country, extending from Wincanton, through Yeovil, to Crewkerne, flax and hemp are cultivated in great abundance, the value of which is in proportion to the ſkill and ſpirit with which it is cultivated.

A crop of flax greatly depends both on the management of the land previous to ſowing, and on the goodneſs of the ſeed.

To raiſe it to advantage, it ſhould be ſown on new broke-up ground, ploughed once, and the ſurface hacked. It ſhould be harrowed once before ſowing, and twice after. Seed imported from Riga, and ſold at about fourteen ſhillings the buſhel, is to be preferred; and the produce for two or three years may, without change, be ſown again; April and the beginning of May are the months for ſowing, and the quantity two buſhels and a half per acre.

The great damage done to flax in its growth is by weeds; and if thoſe people you employ to weed it be not careful, they may do more harm with their feet, than their hands can do good. At any rate, the weeds muſt not be ſuffered to get head of the flax, for if they do, it will become ſtunted in its growth, and get to no height.

When the plant is arrived at its growth, and is in full bloſſom, which in common ſeaſons will be about the beginning of July, it is fit to be pulled, if the grower has a greater regard to the produce of the ſtalk, than to the ſeed.

However,

However, it is a common practice to injure the whole crop for the ſake of the ſeed; and to let it remain till the ſeed begins to ripen, ſo as to have both flax and ſeed. In this caſe, the land ſuffers greatly; for flax ſeeded is a great impoveriſher, but if pulled whilſt in bloſſom, is an excellent preparative for turnips, which ſhould always follow a flax crop inſtead of wheat. The great reaſon why the Iriſh, and indeed moſt foreign flax is finer than the Engliſh, is, becauſe they pull it early, and ſow particular ſpots purpoſely for ſeed; and, perhaps, it would be politick in government to grant a bounty on all foreign flax ſeed ſown in this kingdom, ſo as to reduce the price of foreign ſeed nearly to a level with our own; by this, the growth of flax (and with it the linen trade) would be encouraged, which has of late ſuffered conſiderable diminution by the reſtrictions to its cultivation impoſed by land-owners, under the idea of great injury done to the land by the culture of this plant.

After the flax is pulled, there are two methods of working it; the firſt is called *rating of it*, that is, ſteeping it in water in order to looſen the rind, and ſeparate it from the ſtalk; and the other is called *dew-ripening*, which is the ſpreading it on graſs land, and by rain and dew producing the ſame effect. The early flax is moſtly watered, which is done by laying the bundles in a pond or reſervoir of ſoft water, and keeping them down by ſtones, or any other heavy bodies. In the courſe of ſeven or eight days the rind will be ſufficiently looſened, and they muſt be taken out of the water, ſpread abroad, and dried. In this part of the operation, great ſkill and attention are neceſſary; for if it be left in the water too long, the threads become rotten and uſeleſs to the manufacturer; it is, therefore, more adviſeable to take it out *too ſoon*, than to leave it *too long* in the pits. Thoſe who raiſe flax for the ſeed and ſtalk both, go through an operation

tion called ripling; this is, ſeparating the ſeed from the ſtalk, by paſſing the flax through a kind of comb before it is watered. Theſe combs are made of iron, and the teeth are ſo cloſe that the heads cannot paſs through, and are conſequently pulled off.

It is obſervable, that the land on which rated flax is ſpread to prepare it for houſing, is greatly improved thereby; and if it be ſpread on a coarſe ſour paſture, the herbage will be totally changed, and the beſt ſorts of graſſes will make their appearance. Having myſelf cultivated flax on a large ſcale, and obſerving the almoſt inſtantaneous effect produced by the water in which the flax was immerſed, I was induced ſome years ago to apply it to ſome paſture land, by means of watering carts, ſimilar to thoſe uſed near London in watering the roads. The effect was aſtoniſhing, and advanced the land in value ten ſhillings per acre. This liquid is much ſuperior to animal urine. The practice I therefore ſtrongly recommend to the cultivators of flax; poſſibly it may not be a new idea, but I believe it is ſeldom ſo applied.

The ſecond method, namely, dew ripening, may be carried on immediately after the flax is pulled, or it may be dried and mowed; and in the months of February or March the ſeed may be ſtamped from the ſtalk, and the latter ſpread on the graſs land to ripen.

The principal manures made uſe of by the growers of flax are, the ſheepfold, woollen rags, horn ſhavings, and lime; and it is no unuſual thing for the farmer to find ground, manure, ploughing, and all team work; and the labourer to find ſeed, and all manual labour, dividing at the concluſion the produce, in a way ſimilar to that before ſtated in the *teazel* account. The expence and produce of an acre of watered flax may be thus eſtimated:

Dr.

Dr.	£.	s.	d.	*Cr.*	£.	s.	d.
To rent of land, &c.	2	0	0				
To manure —	2	10	0				
To ploughing ——	0	8	0				
To hacking —	0	5	0				
To harrowing and rolling ——	1	4	0				
To ſeed and ſowing (Riga) —	1	15	0				
To weeding ——	0	10	0				
To pulling —	0	6	0				
To halling to pits and watering. [N. B. The price of this depends on the diſtance] —	0	10	0	By 40 dozen of flax, at 7s.	14	0	0
To taking out of pits, halling, ſpreading, drying, and houſing	0	14	0	By bounty 4d. per ſtone - (allowing 1s. for expences)	0	10	4
To braking, ſwingling, and dreſſing 40 dozen, at 1s. 4d.	2	13	4				
To tithe —	0	5	0				
	12	0	4				
Profit ——	2	10	0				
	£14	10	4		£14	10	4

To this profit may be added the ſucceeding turnip crop, and the improvement of the land by the manure; without theſe, it cannot be conſidered as very lucrative, for it is precarious; and if a dry ſeaſon follow the ſowing, it frequently happens

happens that the flax does not get to any height, and is ſcarcely worth pulling. Some people may think the expences over rated; but if they conſider that the calculation is made under the idea of an acre *ſtatute meaſure*, and alſo that it includes beer, tools, and many other trifling articles of expence, they will be diſpoſed to acknowledge it to be correct—at leaſt, I can ſay, that it is drawn from my own experience of its truth.

HEMP.

THE culture of Hemp and Flax agrees in many reſpects; but in their nature and form they are widely different. In flax, the male and female embrio are lodged in the ſame flower; but in hemp the male is found on ſome plants, and the female on others; they are, therefore, called *male* and *female* hemp; that which has only flowers is the *male*, and that which has ſeeds is the *female* hemp. The male is ripe five or ſix weeks before the female, and they both ariſe from the ſame ſeed.

Hemp likes a deep, rich, dry, ſandy loam, and abhors a cold wet clay; a piece of woodland, grubbed up, generally anſwers well. It requires freſh land, good tillage, but ſeldom dung: even land exhauſted with other crops, *if well tilled*, will produce good hemp, and if properly managed, will leave the land as clean as a garden.

The quantity of ſeed per acre about three buſhels, and time of ſowing April or May; great care muſt be taken to keep off the birds, for they are very fond of the ſeed, and their time of feeding is principally before ſun-riſe, and within half an hour of ſun-ſet. Compleat weeding is as neceſſary for hemp as for flax.

About the beginning of Auguſt the male hemp will be ripe, and great care ſhould be taken that the pullers do not trample

trample and injure the female hemp left ſtanding. It muſt be gathered into ſmall bundles, and nothing more is neceſſary than to dry it in a proper manner, ſo as to make it fit for working.

In managing the female hemp, particular regard is to be had to the ſeed; care, therefore, muſt be taken in drying it. After it is tied up in bundles about the ſize of a yard round, it ſhould be ſet up in the ſun for three or four days; but if the weather be difficult, it may be ſtacked in ſmall mows of about a waggon-load each, where it may remain till it is thoroughly dry, and fit to be houſed; a little wet does not injure the *ſtalk*, but it greatly damages the ſeed. An acre of land will produce from twenty to thirty buſhels of ſeed; and the ſtalk of the female hemp is more valuable than the ſtalk of the male. The watering, braking, and dreſſing of hemp, is ſo nearly like thoſe operations on flax, that I ſhall not detain my reader any longer on this article, and ſhall only add, that in many caſes the crop is more profitable than that of flax.

TURNIPS.

In this part of the county turnips are alſo grown on a large ſcale. They are univerſally ſown broadcaſt, once hoed, and for the moſt part fed on the land as a preparation for barley.*

Wheat, barley, oats, beans, and peaſe, are in general culture; but there is nothing in the mode of management worthy of notice.

Clover is the graſs generally ſown; and their courſe of huſbandry,—1ſt. Wheat;—2d. Turnips;—3d. Barley;—4th. Clover, Vetches, Flax, Hemp, Peaſe, or Beans;—and 5th. Wheat again.

* When working oxen are fed with turnips they ſhould not have water. J. B.

The crops of the *large* farmers are greater than thoſe of the *ſmall*, owing to their ſowing more turnips and vetches, and conſequently keeping a larger folding ſtock. Some of the arable land, being in common field, is in the following courſe, 1ſt. Wheat;—2d. Barley;—3d. Clover, Vetches, Potatoes, &c. and then Wheat again. Theſe crops are comparatively ſmall; wheat is found to ſucceed better after flax or hemp, *(provided they be not ſeeded)* than after potatoes or beans.

Fallowing is not practiſed; the prevailing opinion is, that corn crops, equally good, may be obtained after turnips, clover, potatoes, peaſe, vetches, beans, hemp, flax, &c. (if well manured and kept clean) with thoſe after a compleat *ſummer fallow.* "Theſe are enlightened farmers!"

Let any man viſit this country, view their crops, and the condition of the land, and many arguments will not be neceſſary to make him an *antifallowiſt*, at leaſt, on ſoils like theſe.

The large farmers carry all their dung on their *paſture* land, (excellent!) and ſupport their arable by folding, lime, horn-ſhavings, rags, &c.; but the ſmall farmers act directly the reverſe. The large farmers all plough with oxen; the ſmall farmers with horſes. A renter of ſixty pounds per year muſt keep *three* horſes, for he cannot plough with leſs; and one of five hundred pounds per year will not keep more than *eight*; here is a comparative ſaving of twenty horſes, and juſtifies my former predilection for large *corn* farms.

CHAPTER VIII.

GRASS.

THE Natural Meadows and Paſtures of this diviſion are kept in high condition; and their Artificial Graſſes may vie with any in the kingdom.

CHAPTER IX.

GARDENS AND ORCHARDS.

BEFORE I take my leave of this rich diſtrict, it may not be amiſs to ſay ſomething of their orchards, to the production of which the land is peculiarly adapted. Permit me, therefore, to ſtate, by way of encouragement to planting, that there is ſcarcely an orchard that will not let for four or five pounds per acre; and if the trees are planted at proper diſtances, viz. ſixty feet every way, the paſture ſuffers but little injury; the ſtrength of the ſoil enables the trees to throw forth a multitude of roots ſideways, near the ſurface; it is, therefore, of the utmoſt importance that they ſhould be placed at proper diſtances. In confirmation of this idea, a tree thus placed in an orchard belonging to Mr. BATH, of Mark, has frequently produced four hogſheads of cyder; and the tenant told me, that he would give for it one guinea per year for a term of twenty-one years. The tree is not more than forty years old. Moſt orchards are planted *too cloſe*. The deſire of having a great deal of fruit upon a little ground, is the cauſe of ſo doing; but the method defeats the purpoſe. When an orchard is firſt planted, ſixty

feet

feet appear an immenſe diſtance; and I have known many, who, acknowledging the advantage of diſtance, feel loth to admit ſo great a vacancy, and have planted at thirty feet, with a full reſolution of rooting up every other tree at fifteen or twenty years old; but alas! this is ſcarcely practicable; after a tree is brought to full bearing, an inſurmountable reluctance to eradicate it occurs, which arguments, however powerful, cannot overcome; and after all, many rational farmers are of opinion, that orchards planted at great diſtances ſeldom bear well.

The ſorts of apple in beſt eſtimation are, Royal Wilding, White-Styre, Court of Week Pippin, Pounſet or Cadbury, Flood-Hatch, Black Pit Crab, Buckland, Mediate or Southham, Royal-Jerſey, Woodcock, Red-Hedge Pip, Old-Jerſey, and Redſtreak.* They are grafted on crab ſtocks in the nurſery, with any groſs growing fruit.

As ſoon as the ground for the orchard is ready, plant your trees, and be particularly careful not to plant them deep in the ground. After about four years, lop their heads and graft them with the fruit you moſt eſteem, taking care to adapt your grafts to the ſtock. In other words, let your grafts, and the trees on whoſe heads you graft, be as ſimilar in reſpect to luxuriancy as you can; on this a great deal depends.

It is found, that a luxuriant groſs-growing graft will never ſucceed on a ſlow-growing ſtock, and ſo *vice verſa*. It may alſo be obſerved, that ſome excellent ſorts of fruit are naturally ſo ſlow of growth, that a man, inſtead of planting for himſelf, plants for his grandchildren; and if you endeavour to force them (which is often injudiciouſly done) with

* A ſour yellow apple, ſtreaked with red on the ſun-ſide, be its name what it may, is undoubtedly a good cyder fruit. A. C.

luxuriant

luxuriant ſtocks, you occaſion diſeaſe. The tree never becomes large or laſting, and the fruit will be taſteleſs and inſipid.

Great care ſhould be taken to ſecure the trees whilſt young from the nabbing and rubbing of cattle, and more eſpecially ſheep; but in this reſpect the planters in this county are not very attentive, nor is there any thing worth notice in their management of the fruit.——The average price of the article is about thirty ſhillings per hogſhead.

CYDER-MAKING PROCESS.

The fruit being properly matured, every neceſſary utenſil ought to be ſet in order for cyder-making; the mill, preſs, tubs, caſks, and pails, clean waſhed, and ſuffered to dry before they are uſed.

Several methods are practiſed for converting apples to pommage; but the two moſt chiefly in uſe are, the bruiſing ſtone with a circular trough, and the apple-mill. The beſt internal conſtruction of a mill ſeems to be that which has two pair of rollers, the upper pair being ſtuck with *coggs* and *dags*; and the under pair being of very hard wood, turned ſmooth, and worked with coggs only. The upper rollers grinding the apples to a coarſe pommage, and the under ones ſqueezing it to a very fine pulp.

The apples being, by either of the foregoing methods, properly bruiſed, the pommage is carried to the preſs, and a ſquare cheeſe made thereof, by placing very clean ſweet ſtraw or reed between the various layers of pommage, or elſe by putting the ſame into hair-cloths and placing them one on another.* To this cheeſe, after ſtanding a while, a

* It is of importance, that the ſtraw or reed be ſweet and perfectly free from any fuſtineſs, leſt the cyder be impregnated therewith.—Particular care ought alſo to be taken to keep hair-cloths ſweet, by frequent waſhing and drying, elſe the ill effects of their acidity will be communicated to the cyder.

ſlight preſſure is at firſt given, which is gradually increaſed, until all the juice or *muſt* be expreſſed; after which, this *muſt* is ſtrained through a ſieve and put into veſſels.

Thus far cyder-making is a mere manual operation, performed with very little ſkill in the operator; but here the great art of making *good cyder* commences. Nature ſoon begins to work a wonderful change in this turbid liquor; and by fermentation converts it into a wholſome, vinous, heart-cheering beverage, nearly equal to the juice of the grape itſelf.

It is well known, that there are various ſtages of fermentation in theſe juices, each of which changes the very quality and nature of this fluid; but the principal, which are to be particularly attended to in the inſtance now under conſideration, are three; namely, the *vinous*, the *acetous*, and the *putrefactive*. The firſt converts the *muſt* from its turbid fulſome ſtate, to a tranſparent ſpiritous liquor.

If the juice be expreſſed from *ſour* apples, this fermentation is perfected in two or three days; but if from *ſweet* apples, not under a week or ten days.

The next ſtage of fermentation gives an acidity to the vinous liquor before ſpoken of, converting it to vinegar.

This fermentation begins ſoon (frequently in few hours) after the vinous is ended; and, if the fermentation be improperly haſtened by heat, *before* the vinous is perfected. The third (and all ſucceeding fermentations) diſengages an alkali from the liquor, and gives it a tendency to putrefaction.

To regulate the firſt, and to check the others, is then the great buſineſs of that cyder-maker who would attach to himſelf the ſatisfaction and fame every one is emulous of.

Let us, therefore, conſider how theſe ends are beſt attained.

It

It is well known, that fermentation ſhould not by too much heat be carried on rapidly, nor by extreme cold too ſlowly; as in each caſe the fermenting body will be injured.

Hence it appears, that a certain degree of warmth, or rather imperceptible heat, conduces beſt to regulate this operation. This degree of warmth may be underſtood to reſt between thirty-eight and forty-ſix degrees of Farenheit's thermometer. If then the warmth of the cellar in which new-made cyder is placed be between theſe points, we may expect (no adventitious cauſe interrupting) that the vinous fermentation will commence and go on with due regularity.

It has been obſerved above, that fermentation is an inteſtine motion of the parts of a fermentable body; this motion, in the preſent caſe, is always accompanied with a ſmall hiſſing noiſe and evident ebullition; the bubbles riſing to the ſurface, and there forming a ſcum or ſoft ſpongy cruſt over the whole liquor. This cruſt is frequently raiſed and broken by the air as it diſengages itſelf from the liquor, and forces its way through it. Theſe effects continue while the fermentation is briſk, and at laſt gradually ceaſe. The liquor now appears clear to the eye, and has a pungent vinous ſharpneſs upon the tongue.

Now is the critical moment which the cyder-maker ought not to loſe ſight of; for if he would have a ſtrong and generous liquor, all further ſenſible fermentation muſt be ſtopt. This is beſt done by racking off the pure part into open veſſels, and placing them in a more cool ſituation for a day or two: after which, it may again be barrelled and placed in ſome cool place for the winter.

It is poſſible, however, that a variety of avocations at the ſeaſon of cyder-making may take off too much of the farmer's attention from this branch of œconomics, and give opportunity to the acetous fermentation to come on, ere he

is

is aware of it. What remedy (it may be aſked) has he to prevent the ill effects thereof running to full extent?—Several have been tried; ſometimes with a degree of ſucceſs, at other times wholly unavailable.

The moſt popular ones are the following:—a bottle of French brandy, half a gallon of ſpirit extracted from the lees of cyder, or a pailful of old cyder poured into the caſk, ſoon after the acetous fermentation is begun; but no wonder if all theſe ſhould fail if the cyder be ſtill continued in a cloſe warm cellar. To give effect to either, it is neceſſary that the liquor be as much expoſed to a colder atmoſphere as conveniently may be, and that for a conſiderable length of time. By ſuch means, it is poſſible to repreſs the ſecond fermentation in a great meaſure; and if a caſk of *good* cyder cannot from thence be obtained, a *tolerable* one may.—Theſe remedies are innocent; but if the farmer or cyder-merchant attempt to cover the accident occaſioned by negligence or inattention, by applying *any preparation of lead*, let him reflect that *he is about to commit an abſolute and unqualified murder on thoſe whoſe hap it may be to drink his poiſonous draught.**

* Should, however, any one be wicked enough thus to ſophiſticate a caſk of cyder, his villainy may be detected in the following manner: Make a decoction of orpiment in lime water, drop a ſmall quantity hereof into a glaſs of ſuſpected cyder, and if it has been impregnated with any preparation of lead, its colour will ſoon change to a brown, dirty red, or black; but if it be genuine, its colour will remain nearly the ſame. Some liquid liver of ſulphur will have a ſimilar effect. Biſhop WATSON directs us to boil together, in a pint of water, an ounce of quick lime and half an ounce of flowers of brimſtone; a few drops of this liquor being let fall into a glaſs of cyder containing lead, will change the whole into a colour more or leſs brown. Eſſays, vol. iii. p. 371.

In the 4th and 5th vol. of the Bath Society's Papers, there are ſeveral valuable papers on the pernicious effects of lead veſſels in dairies, which deſerve publick notice and attention.

Stumming of cyder is a provincial phraſe, ſignifying the fuming a caſk with burning ſulphur; and is thus performed: take a ſtrip of canvas cloth about twelve inches long and two broad, let it be dipped in melted brimſtone. When this match is dry, let it be lighted and ſuſpended from the bung of a caſk (in which there are a few gallons of cyder) until it is burnt out: the caſk muſt remain ſtopped for an hour or more, and then be rolled to and fro, to incorporate the fumes of the match with the cyder, after which it may be filled. If the ſtumming be deſigned only to ſuppreſs ſome ſlight improper fermentation, the brimſtone match is ſufficient; but if it be required to give any additional flavour to the cyder, ſome powdered ginger, cloves, or cinnamon, &c. may be ſtrewed on the match when it is made:—the burning theſe ingredients with the ſulphur will convey ſomewhat of their fragrance to the whole caſk of cyder; but to do it to the beſt advantage, it muſt be performed before the vinous fermentation be fully perfected.

To perfect a veſſel of cyder, after the foregoing ſteps have been taken, it will be found neceſſary now and then to ſupply the waſte occaſioned by evaporation and inſenſible fermentation with freſh cyder; and about the beginning of April following to give it a final racking. At this time a commixture of cyder made from the Jerſey or any other luſcious and ſweet apple, with that of the ſour apples, may be recommended, to give it a general regular colouring.—Should, however, a higher colour be required than what reſults from ſuch commixture, a ſmall quantity of burnt or melted ſugar, prepared in the following manner, will produce the deſired effect: Take a pound of ſugar, and put it into a ſtew-pan with a little water, and place it over a clear fire, ſtirring it frequently till it turns black; take it off the fire, and as cools apply ſome cyder thereto, by little and little,

little, and continue ſtirring it till it be thoroughly mixed. This colouring tinges to perfection, is very cheap, gives no luſcious ſweetneſs, but rather an agreeable bitterneſs, and thus recommends itſelf to the nicer palates.

Soon after this, in the ſame month, the cyder may be bottled; and by the month of June the owner may expect to find himſelf poſſeſſed of a rich, pleaſant, and wholeſome liquor.

"If there be a general characteriſtick of good cyder fruit, "it ſeems to be this: that the apple be of a yellow or light "red ground, tinged with red ſtreaks on the ſun ſide, of a "ſmart acid flavour, with firm but juicy parenchyma;—if "it poſſeſs theſe criteria, be it called by what name ſoever "it may, it will, doubtleſsly, make good cyder."

CHAPTER X.

WOODS and PLANTATIONS.

THE low lands are badly wooded, and planting in general ſhamefully neglected, particularly a very profitable part of it, viz. the elm and the willow, both of which thrive in this ſoil, and the latter is much wanted for the purpoſes both of the thatcher and fiſherman.

There is, in the eaſtern part, an extenſive chain of wood from the pariſh of Eaſt-Cranmore through Downhead, Cloford, Whatley, Elm, &c. ſeveral miles in length, beſides other woods of conſiderable importance. On the borders of Wiltſhire is a large foreſt, which extends from Penſelwood to within three miles of Frome.

This foreſt was diſafforeſted about the ſeventh of Charles I. and divided into three portions, one whereof was allotted to the lords of manors, another to the commoners, and a third to the crown. The latter was ſold off to the adjoining landholders. Sir Richard Hoare, bart. Thomas Southcote, eſq; the Duke of Somerſet, William Beckford, eſq; the Earl of Corke, and the Marquis of Bath, are the owners of the greater part of the woods now remaining. No great quantity of woodland, in this tract of country, has been grubbed within the laſt forty years, but much new ground has been planted during that period, particularly on the hills belonging to the Marquis of Bath, Mr. Beckford, and Sir Richard Hoare, very much to the profit of the owners, as well as to the ornament and convenience of the country.

Theſe woodlands are, in general, in a ſtate of coppice wood, with an intermixture of timber, chiefly oak; but the ſoil,

ſoil, particularly in the vallies, being in general of a ſtrong yellow clay, is of ſo cold and retentive a nature, that vegetation is exceedingly ſlow; and the oak trees, though ſpringing up ſpontaneouſly, in great abundance, are ſo apt to get moſſy and dead topped, that few of them come to a large ſize; and yet, on account of its vicinity to good inland markets, which are never overſtocked with underwood or timber, the profit from woodland, under any tolerable degree of management, may be fairly taken at nearly double the value of the adjoining land in an arable or paſture ſtate; and the profit ariſing from the new-planted hills, particularly the ſandy parts of them, has been, in many inſtances, near ten per cent. on the original expence of planting and fencing.

Surely no greater inducement can be held out to the owners to preſerve the old woods, or to plant new ones, in ſoils and ſituations ſo favourable to their growth, and in a country that would ſuffer very materially for want of wood, if deprived of this reſource.

But as the profit ariſing from theſe woods depends very much on the mode of management, it will not be thought improper to give a few general rules, taken from the appearance of ſuch of thoſe woods as are *well managed*, to the owners of thoſe woods that have a very different appearance, and that appearance not occaſioned by any apparent diſadvantages of ſoil or ſituation.

The natural defect of theſe woods, particularly that part of them which abounds with oak timber, has already been ſtated to be the ſlowneſs of their growth. This proceeds from three cauſes:

1*ſt*. The native coldneſs of the ſoil.

2*dly*. The expoſure of a great part of the woods to the ſouth-weſt wind.——And,

3*dly*. The injury the woods receive from cattle.

In

In proportion as theſe defects have been obviated by art, the woods may be ſaid to be well or ill managed. Draining the cold wet parts of them is the obvious remedy of the firſt-mentioned defect. Screening them from winds, by ſkirting with Scotch fir and other hardy plants, and keeping them moderately thick of timber, are the beſt remedies for the ſecond. But both theſe remedies will be uſeleſs, unleſs a ſtrict attention be paid to the fences, ſo as to keep the woods from being cropped by cattle. This is particularly hurtful to ſlow growing timber, and by it theſe woods (though in very few inſtances ſubject to common rights) are very materially injured.

Wherever, as is the caſe in the greateſt part of the woods, oak timber is the natural produce of the ſoil, it ſhould, by all means, be encouraged; and as its growth to a certain period is uſually very rapid, and afterwards altogether as ſlow, it ſhould be cut when that period of ſtagnation commences, and a freſh ſet let up to ſupply the deficiency.

There are many inſtances in theſe woods, where, although the underwood cannot by the beſt management be made worth more than eight pounds per acre at ſixteen years growth, yet at leaſt twelve ſmall oaks, worth twenty ſhillings a-piece, may be cut regularly at every round of the wood, from every acre, and that without injury to the underwood.

No ſyſtem will pay equal to this; the underwood, inſtead of ſuffering from the multiplicity of trees, will abſolutely be better than without any. The ſhelter afforded by theſe trees making amends for the damage done by the dropping from them; eſpecially as aſh underwood, on which the value of coppice wood greatly depends in this country, (and which does not grow well under the dropping of timber) does not in general thrive well in theſe cold ſoils.

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The underwood that thrives beſt in them is oak, willow, alder, and above all *birch*. Theſe kinds of wood will, if proper attention be paid to them, be fit to cut at ſixteen years growth; if cut oftener, the wood will ſcarcely be large enough for the purpoſes of the country; and if ſuffered to ſtand much longer, the timber is apt to receive a check from the cold winds, when deprived of the ſhelter of the underwood. The coal-pits near Mendip furniſh a never-failing market for the poles of this underwood, and the demand for the domeſtick uſes of the country is fully ſufficient for the reſidue; and as not only this end of the county of Somerſet, but alſo the adjoining part of Wiltſhire, depend on theſe woods for oak timber, the demand is, and always will be, equal to the ſupply.

From the produce of theſe woods charcoal is ſometimes burnt for the uſe of the manufacturers. The wood is then cleaved and heaped into what is called a cord of wood, the dimenſions of which are,

8 feet 4 inches long,
4 do. 4 do. high,
2 do. 2 do. broad.

The price of cleaving and heaping from 1s. 10d. to 2s. 3d. per cord. The expences of burning one hundred cord of wood, the value of which for fuel is ſix ſhillings per cord, may be thus eſtimated:

	£.	s.	d.
Cabin for the man — — — —	0	5	0
Burning 263 ſacks of charcoal, at 6d. per ſack	6	11	6
Halling ditto, at 6d. per ſack — —	6	11	6
Unloading — — — — —	0	12	0
Wear and tear of ſacks — — —	3	10	0
	17	10	0
One hundred cord of wood, as fuel, at 6s.	30	0	0
	47	10	0

PRODUCE.

Two hundred and ſixty-three ſacks, of nine buſhels each, at 4s. 10½d. per ſack	—	—	64	2	1½
From which deduct	—	—	—	47	10	0
Balance in favour of charcoal in compariſon with fire-wood	—	—	—	£.16	12	1½

As to the new-planted woods, particularly thoſe on the high parts of Rodenbury-hill, Witham-park, and Kingſettle-hill, although all kinds of wood grow well upon them, (and eſpecially upon the ſandy parts of them) provided they are planted in maſſes ſufficiently large to ſhelter themſelves from the winds, yet nothing appears to grow ſo well as fir, and particularly *Scots fir*. An occaſional mixture of ſilver fir, ſpruce fir, and larch, on ſome of the beſt and moſt ſheltered ſpots, and a general thin mixture of beech and other foreſt trees, add certainly very much to the *variety* and *beauty* of the plantations in which they have been introduced; but in point of *profit* the Scots fir ſtands unequalled, for rapidity of growth, for ſuperiority in value when grown, and above all, for its ability to bear the cold expoſure of the country.

There are inſtances on theſe hills, on land not worth, in a ſtate of paſturage, three ſhillings per acre, that plantations of Scots firs, of thirty years old, are now worth eighty pounds per acre,* and the demand for this kind of wood increaſes as faſt as its uſes, becauſe more and more known. A great encouragement ſurely to cover the reſidue of the land, of this deſcription, with plantations; eſpecially when

* This is proved by ſtating, that at eight feet and a half diſtance, ſix hundred and forty trees ſtand on an acre; and that they are worth, at a low computation, two ſhillings and ſix-pence each.

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it is conſidered that this kind of application of the land not only contributes ſo wonderfully to the improvement of the eſtate on which it is made, and to the employment of the poor of the neighbourhood, but that it alſo adds ſo much to the beauty, the comfort, and the convenience of the country for many miles round.

The coldneſs and fourneſs of the ſoil of this part of the country, and particularly of thoſe parts that were once in wood-land, tend much to depreciate its value in cultivation, either as arable or paſture land.

In an arable ſtate it produces few ſorts of grain kindly. It will not at all do for barley; it is in general too poor and ſtubborn for beans, and only a very favourable ſeaſon can inſure a good crop of oats; wheat is its favourite crop, and this is ſometimes late in ripening, and is frequently purchaſed at the loſs of two or three years rent, and of more dung than the paſture part of the country can afford to loſe. And the peculiar inaptitude of this ſoil to return to graſs, after it has been once ploughed, (and more eſpecially, as is too often the caſe where it has been burn-beaked) is an inſuperable objection to its being uſed in any kind of convertible huſbandry. In a ſtate of graſs land, the lateneſs of the ſpring, and conſequent length of the winter, reduce its value very much, even in the only mode of application to which it is at all adapted, viz. "the dairy."

The great improvement of which the cold part of this country is capable, may be expreſſed in a few words, "Shorten the winter." This is to be done principally by draining off the ſuperfluous water; as the ſprings of ſo many principal rivers, viz. the *Frome*, the *Cale*, and the *Brew*, riſe in this neighbourhood, the land muſt every where be full of it; and ſecondly, by treading the wet land as little as poſſible in the winter; but, on the contrary, winter hayning, wherever

wherever it is practicable, and of courſe mowing early in the ſummer, and endeavouring as much as poſſible to mow and feed every piece of land alternately.

Nothing has contributed more to the improvement of the cold wet parts of this country, than the plan which ſeems daily to gain ground, of building ſheds for houſing cattle in the winter. This not only prevents the land from being poached out in wet ſeaſons, whereby the ſward is frequently trod out of ſight, but alſo produces dung, of which the land is ſo much in want, and of which it has hitherto had ſo little; it being a well-known fact, that many pieces of land have been conſtantly mown *every year* within the memory of man, and that frequently not earlier than Auguſt, without the leaſt return of dung, or any other manure whatever, ſave only the aſſiſtance ſuppoſed to have been given them by the foddering of cattle thereon in the winter, and which, in wet ſeaſons, has certainly done more harm than good.*

Thoſe

* The remark, p. 77, that nature has wiſely provided a manure within itſelf, which in moſt ſoils may be found near at hand, and congenial thereto, is applicable to theſe cold unprofitable lands. It is preſumed that theſe alſo may from themſelves be ſupplied with a plentiful and permanent manure, ſo as to make them convertible to tillage or paſture. The means of effecting this is, by burning the clay of the ſame lands in ſuch manner as to reduce it to a ſtate of pulverization fit for ſpreading on the land, which, as an indiſpenſible preliminary, muſt firſt be properly drained. This was practiſed many years ago by Mr. PARSONS, of Weſt-Camel, on a pretty large ſcale, and with remarkable improvement of a wet clayey ſoil. His method was, to carry all the earth and clay from his drains, (which were open ones) ditches, &c. to one place, where letting it remain ſome time to dry, he made a fire with wood on the ground, gradually adding thereto his materials till the whole was ſufficiently burnt; and he was ſo great an adept, that (as he ſaid) he knew by the ſmoke when the fire was of a proper degree of heat for pulveriſing the clay without burning it to brick. At the time of his ſaying this, he had a very good ſpecimen of his ſkill, a very

Thoſe parts of this diſtrict which have a covering of red loam, particularly in Witham-park, and thoſe which lie on the deep ſand vein which runs through Kilmington and Yarnfield, have been much improved by chalk, from Bradley, Long-Knowl, &c. and by this aſſiſtance may be very profitably kept in tillage; but the want of a permanent manure for the cold clays, which compriſe the greateſt part of this diſtrict, is a very great objection to the ploughing them at all, and a ſtrong recommendation to the keeping them in a ſtate of paſturage.

Wherever there is, in this cold country, an appendage of arable land to a dairy farm, and which is certainly not only uſeful, but abſolutely neceſſary, on account of ſtraw for making dung; care ſhould be taken to prevent the tenant from uſing any part of the ſtall-dung on the arable land, ſo as to oblige him to buy lime, rags, aſhes, and ſuch like, for

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very large heap as finely pulveriſed as the burnbake from earth and weeds in a garden. With this he mixed any other ſort of manure which he could get, and carried out all together, either on his paſture or arable land, to the very great improvement of both. As there is, in different parts of the kingdom, an immenſe quantity of this ſort of land, the ſubject merits a ſerious conſideration; and if by a kiln, or any other contrivance, clay could be burnt at an eaſy expence, with certainty and diſpatch, the improvement of theſe lands would, or might, be ſuch as nearly to double their preſent value, to the great increaſe of private property and national riches. Materials for this can never be wanting, as the drains, whether open, or ſtoned, parings of the ditches, &c. will afford a conſiderable ſupply; and if more be deſired, a ſmall portion of the field may well be ſpared, with a view to the melioration of the remainder.

The preſent is ſaid to be an enlightened age. It certainly is an age of experiments, which, in ſome inſtances, are proſecuted with the greateſt ardour, though, at the ſame time, to the queſtion, *cui bono?* no ſatisfactory anſwer can be given. In this caſe the *bonum* is obvious and extenſive, and the beſt way of accompliſhing it is an object highly deſerving the attention of the Board. R. P.

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the latter, and to reſerve the whole of the ſtall dung for the graſs land.

Every encouragement ſhould alſo be given to induce the tenant to underdrain the land, or, if the landlord has already made the drains, to preſerve them. He ſhould alſo be obliged to mow and feed the land alternately, and induced, by proper cattle-ſheds, to take his cattle off the wet lands ſome time in November, whereby he would not only ſave treading out his land, but alſo be enabled to get early graſs; he would by that means alſo be enabled to mow early in the ſummer, and of courſe to get a good crop of after-graſs, which he might preſerve till a late period in autumn, and by thus ſhortening the winter *at both ends*, he may be enabled by *art* to reduce it nearly to the length it generally is, in more favoured ſituations, and thereby, in a great meaſure, cure the *great natural defect of the country*.

CHAPTER XI.

WASTES.

THE largeſt unincloſed (*upland*) common in this diſtrict, is the foreſt of *Neroche*, containing about eight or nine hundred acres.

The right of ſtocking on this common belongs to the pariſhes of Ilminſter, White-Lackington, Donyat, Broadway, and others; and in regard to quantity is unlimited. For want of proper draining, this common rots the ſheep, and is of very little value. If incloſed, drained, and cultivated, it might be made worth from twelve to twenty-five ſhillings per acre. Next in ſize is White-down, near Chard. There are a few other ſmall unincloſed commons in different pariſhes; but their total amount does not exceed four or five hundred acres.

Of the moor, or low marſhy lands, there cannot be leſs than eight thouſand acres.

The land in open field, is, for the moſt part, in ſmall pieces of one, two, and three acres each. Were proper exchanges made, and the ſame divided into pieces of ten or twelve acres, it would be advanced in value eight or ten ſhillings per acre.

CHAPTER XII.

IMPROVEMENTS.

GREAT attention is paid to draining by all the ſheep farmers. The common drains are ſixteen inches wide, from twenty to thirty deep, and are for the moſt part *turf drains*; and when the turf is ſtrong they are found very durable.

Paring and burning but little practiſed.

CHAPTER XIII.

LIVE STOCK.

OXEN.

GRAZING MANAGEMENT.

THERE are two methods of fatting oxen, the one called ſummer, the other winter fatting; the firſt is thought the moſt profitable, and accompanied with the leaſt riſque.

In the firſt method, they are purchaſed in February, and are for the moſt part of the Devon ſort, bred either in the Northern part of that county, or in the lower part of Somerſetſhire. They are bought in good condition, and coſt from eight pounds to fifteen pounds each; during the interval between February and graſs time, they conſume each about ten hundred or twelve hundred of *inferior* hay, viz. the ſkimming of their ſummer leaze. When at graſs, they are

are allowed from one acre to one acre and a half each ox, and ſome add one ſheep to each ox. Horſes, if any, are kept very ſparingly, not at any rate to exceed one to twenty acres of grazing ground. Theſe oxen will be fat, ſome before and ſome ſoon after Michaelmas, paying for their keep from three ſhillings and ſix-pence to four ſhillings per week.

Frequent bleeding, in ſmall quantities, is found to accelerate their fatting.

The next ſtock are bought in June, July, and Auguſt, and are not of ſo good a ſort, being either home-bred or Welſh, and coſt from ſix to eight pounds. Theſe follow the ſtock purchaſed in February, and are ſometimes ſtall-fed in the winter, and ſometimes fatted in the field; in either caſe they have the beſt hay, and good attendance.

They are fat in April and May, and ſell from twelve pounds to fourteen pounds each.

A grazier occupying two hundred acres of land may fat yearly one hundred head of oxen, to which add two hundred and ſeventy ſheep and ten colts, conſtituting altogether a profit comfortable, but by no means *exorbitant*.

The account may be thus ſtated:

GRAZING.

Dr.	£.	s.	d.
To rent of 200 acres, average value 40s. an acre	400	0	0
To tithe and taxes, ſay	50	0	0
Feb. To fifty oxen, at 11l.	550	0	0
July. To fifty oxen, at 7l.	350	0	0
To mowing and making fifty acres of hay, at 10s.	25	0	0
To ſkimming and making fifty acres of ſummer-leaze, at 3s.	7	10	0
To wages throughout the year, beſides the farmer's labour	50	0	0
To accidents	20	0	0
	1452	10	0
To profit (intereſt of capital and accidents included)	277	10	0
	*£1730	0	0

Cr.			
Oct. By fifty oxen, at 18l.	900	0	0
May. By fifty oxen at 13l.	650	0	0
By profit on ſeventy ſheep, ſummer kept	40	0	0
By profit on ten colts	40	0	0
By profit on two hundred ſheep winter fatted, and ſold in April unſhorn	100	0	0
	£.1730	0	0

* Nothing can be more pleaſing and ſatisfactory, to a farmer engaged in the department of grazing, than a power of aſcertaining the ſeparate pay of each particular ox, ſheep, pig, &c.; this may eaſily be accompliſhed by means of a weighing engine. For the weight of the ox, &c. when bought, being thereby exactly determined, the animal ſhould be then numbered in the horn, a book correſpondent to ſuch number being opened, in which the weight ſhould be then inſerted, and a column opened for the purpoſe of inſerting remarks made during the progreſs of the animal's fatting.

The oxen, when fat, are driven to the London, the Saliſbury, and the Briſtol markets, at the following expences, (ſaleſman's commiſſion included:)

London, 12s. per head
Sarum, 5s. ditto
Briſtol, 3s. ditto.

They are nine days travelling to London, a diſtance of one hundred and thirty miles. It is difficult to ſay which may be conſidered as the beſt market; but the general opinion ſeems to be, that the London market is calculated for thoſe only who attend it regularly every week, the price of beef per ſtone greatly varying according to the plenty or ſcarcity in the market.

Some farmers graze heifers in preference to oxen, buying them in about the months of March and April, and ſelling them in October and November. The profit amounts to forty ſhillings or fifty ſhillings each for their ſummer food; and the land is ſtocked after the rate of one heifer to each acre, together with a conſiderable number of ſheep both in ſummer and winter; and it is thought by many, that this method of occupation is more profitable than the former.

Others fat two-years old wedders of the Dorſetſhire and Somerſetſhire breed. The Dorſet ſort are purchaſed about Michaelmas, at Sherborne and Stolford fairs, price from twenty ſhillings to thirty ſhillings. No hay is given in the winter, unleſs the weather be uncommonly ſevere, or the ground covered with ſnow. They are ſold fat between February and May, and weigh from twenty to thirty pounds per quarter. A few oxen accompany the ſheep, which are bought in the ſpring, and fatted the enſuing winter. It is the univerſal opinion, that ſheep are not ſo profitable ſtock as oxen.

It is no unuſual thing for ſome of the graziers to give their prime oxen a *ſecond* ſummer's graſs. In this caſe they are brought to a high ſtate of perfection, and in all probability they pay more the *ſecond* year than the *firſt*; for it is well known, that an animal nearly fat will conſume much leſs food than a poor one.

Ewes and lambs are alſo the ſtock of ſome farmers; they are purchaſed partly in the autumn in lamb, and partly in the ſpring with the lamb by their ſides, and are moſtly of the Dorſetſhire or Mendip breed.

All the graziers of this county are partial to the red oxen of Somerſet and Devon; and you ſeldom ſee a North-country ox in their poſſeſſion. They will not allow that the Northern oxen poſſeſs any comparative merit, either for labour or ſlaughter; perhaps ſome allowance ſhould be made for long-eſtabliſhed prejudices; but it muſt be admitted, that in the London market, to which fat oxen are brought from all parts of the kingdom, the Somerſetſhire (next to the Galloway Scot fatted in Norfolk and Suffolk) appear to bear the belle, both in reſpect to fineneſs of grain and internal fatneſs; and there cannot be a ſtronger proof of their merit than the increaſing demand for them with the moſt eminent graziers of Leiceſterſhire, Oxfordſhire, Warwickſhire, &c. many of whom regularly attend the fairs both of Devon and Somerſet, as purchaſers of them lean; and I have been credibly informed they find a good account in ſo doing. As to myſelf, it is with reluctance that I hazard an opinion on this ſubject; reſpecting which, men of long-eſtabliſhed experience are ſo much divided, and on which ſuch various opinions exiſt. But I cannot help remarking, that if the ſuperiority of the Northern ſort were ſo conſpicuous as the great breeders of the North affirm, how is it that ſome of their beſt friends and moſt ſtrenuous ſupporters

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in the *ſheep line* deſert them here, and give an unqualified preference to the Weſtern breed? It is not likely that a wary and conſiderate farmer would travel one hundred and fifty or two hundred miles to purchaſe ſtock, with all the manifold inconveniencies and riſque which muſt attend the driving ſo far, if he could purchaſe equally cheap and good at home.

Nothing is more cenſurable than an injudicious partiality; and this principle ofttimes leads men haſtily to run away with ideas unſupported by fact; but when long experience and frequent trial have produced conviction, a farmer would be equally inexcuſable, were he to reſiſt the influence naturally produced in his mind thereby.

The red breeds of Devon and Somerſet have been progreſſively increaſing, and they are now partially diſperſed over great part of the kingdom; and in reſpect to their qualities as a *labouring* animal, I never heard but one opinion, and that opinion I can myſelf confirm from large and long experience, namely, that they are *the beſt in the kingdom.* In reſpect to their qualities as a *fatting* animal, I will not ſpeak ſo decidedly, for I verily believe they have many rivals; the French, the Galloway Scot, the Leiceſter and Oxfordſhire, the Herefordſhire, the Glamorganſhire, the Suffolk polled, are all good grazing cattle; and in almoſt every county may be found in the hands of the moſt ſpirited and attentive farmers, a valuable ſort highly ſuperior to the general run of the county; and I muſt again repeat, that the ſafeſt plan which a farmer can adopt is that of improving his breed by a judicious ſelection of his beſt females, and by procuring ſuch males as are eminently diſtinguiſhed for perfection in thoſe points wherein his females may be found deficient. A total change of ſtock is frequently accompanied with loſs and diſappointment; and if the attempt ſucceed, you are for

a conſiderable time driven to the neceſſity of fatting all you breed; for the rooted prejudice of the graziers in favour of the prevailing ſort of the county, whatever they may be, cannot eaſily be overcome; and you may in vain expect at market a price adequate to your care and exertion.

Notwithſtanding what has been ſaid, there are certain well-founded axioms in the grazing ſyſtem relating to the ſhape of the animal, which cannot juſtly be diſputed. Delicacy in the horn, head, and neck; deepneſs and roundneſs of the carcaſe, wideneſs of the loins, elaſticity in the fleſh, ſmall bones, accompanied with a thin ſkin: theſe, with many other points which might be enumerated, are conſidered as eſſentials, and are ſeldom unaccompanied with an aptitude to fat.

The ſame partiality which I have here ſtated to exiſt among the Marſh farmers in favour of the red oxen, was, a few years ſince, as ſtrongly manifeſted in favour of the Dorſetſhire ſheep; but of late the *polled* breed of the lower part of the county gain ground, and are in high eſteem.

Theſe ſheep are bred in the neighbourhood of Dulverton, Bampton, Wiveliſcombe, &c. they are well made, yield a large ſhear of wool, and fat quickly; but they might, in my opinion, be greatly improved by a croſs with the Leiceſter, to which they have in ſize and ſhape ſome degree of affinity. The objection made by the breeders in that diſtrict to a croſs with Leiceſter is, that what they might gain *externally*, they ſhould loſe *internally*; and that the deficiency in the fat of the inſide would ſo diſgrace their ſheep in the eye of the butcher, that they would loſe their old cuſtomers.—Surely this reaſoning is fallacious; for, on a ſuppoſition that the inſide fat of a ſheep were by this intermixture to be reduced ſix pounds per ſheep, (and I think this as much as it poſſibly could be) the deficiency, at four-pence per pound, would

would amount to only two ſhillings; five pounds extra weight of the carcaſe would pay this; and if the buyer were to allow the butcher for this defect, all reaſonable objection on his part is done away; and, on the other hand, the grazier need not be alarmed, for he may reſt aſſured, that the increaſe of the carcaſe will amply repay the want of inſide fat.*

A liſt of FAIRS *to which the* SOMERSET GRAZIERS *reſort to buy* LEAN STOCK.

SOMERSET.

Binegar, Whit Wedneſday and Thurſday
Biſhop's-Lidiard, April 5
Bridgwater, June 24, Oct. 2, and Dec. 28
Broomfield, Nov. 13
Bagborow, May 23
Briſtol, March 1, and Sept. 1
Caſtle-Cary, Tueſday before Palm Sunday, May 1, and Whit-Tueſday
Chard, firſt Wedneſday in May, and in November
Comb St. Nicholas, Wedneſday ſen'night before Chriſtmas-day
Dulverton, July
Frome, Feb. 24, and Nov. 24
Lanſdown, Auguſt 10
Milverton, October
North-Petherton, May 1
Pensford, May 6, and Nov. 8
Priddy, Auguſt 21
Somerton, Monday before the 30th of January, Oct. 30, Nov. 8, and the firſt great market the Tueſday before Eaſter, and four other markets every three weeks after
Taunton, June 17, and July 7

* The foregoing account of grazing was written in the year 1794, ſince which a great advance has taken place, both in the price per acre, and the value of the land. J. B.

Ubley,

Ubley, September 4
Wellington, Thurſday before Eaſter
Wells, May 14, July 5, Oct. 25, Nov. 30
Weſton-Zoyland, Sept. 9
Wiveliſcombe, May 11 and 12
Yeovil, June 28, and Nov. 17
Shipham, Nov. 17.

DEVON.

Aſhbrittle, February 25
Axminſter, Wedneſday after Pack-Monday
Barnſtable, September
Chudleigh, Eaſter Tueſday
Churchinford, January 25, 26
Crediton, April , May 11, Auguſt 21
Exeter, Aſh-Wedneſday, Whit-Monday, Lammas-day, and Dec. 6
Hatherly, May 21
Honiton, July
Oakhampton, Tueſday before Lady-day
Ottery St. Mary, Tueſday before Palm-Sunday, and the Wedneſday ſe'nnight after Whitſunday
Sandford-Peverel, April
South-Molton, April 12
Tiverton, Trinity-Tueſday, and Oct.
Great-Torrington, third Saturday in March, May 4, and Midſummer
Witheridge, April

Fairs at which Fat Cattle are ſold.

Axbridge, February 3, and March 25
Backwell, September 21
Banwell, January 18
Bridgwater, ſecond Thurſday in Lent, Oct. 2, and Dec. 28
Briſtol, March 1, Sept. 1
Burnham, Trinity-Monday
Eaſt-Brent, Auguſt 26
Huntſpill, June 29
Priddy, Auguſt 21
Wedmore, Auguſt 2

Wells,

Wells, October 25, November 30
Somerton, Tueſday before Eaſter, and every Tueſday three weeks till Midſummer
Weſton-Zoyland, September 9
Mark, Tueſday before Whitſuntide, and September 15
Wollavington, October 18
Langport, ſecond Monday in Lent.

COWS.

The cows of this diſtrict being intended chiefly for the purpoſes of cheeſe-making, the profit ariſing is in proportion to the quantity and quality of the milk; ſize, therefore, is not attended to, but principal regard is paid to the breed whence ſhe ſprung. The dairy-men think it more profitable to have a ſmall breed *well fed*, than the beſt breed in the world *ſcantily kept*; and the cow that gives milk the longeſt is moſt eſteemed.* The time of calving is from the

* The cheeſe of this diſtrict is much admired, particularly that made in the pariſhes of Mear and Cheddar.

It is for the moſt part purchaſed by jobbers, and ſent through the medium of Weyhill, Giles's-hill, Reading, and other fairs, to the London market, where it is ſold under the name of *double Gloceſter*.

The method of making has been ſo often deſcribed, that I ſhall not trouble my readers with a minute detail thereof. The annexed ſhort account of the proceſs I ſhall only premiſe, with obſerving, that cleanlineſs, ſweet rennet, and attention to breaking the curd, are the principal requiſites in cheeſe-making.

PROCESS OF CHEESE-MAKING.

When the milk is brought home, it is ſtrained into a tub, and about three table-ſpoonfuls of good rennet put therein, (ſuppoſing the quantity of milk ſufficient to make a cheeſe of twenty-eight pounds) which remains undiſturbed about two hours, then it becomes curd, and is properly broken; when done, three parts of the whey is taken therefrom and warmed, and then put into the tub again, where it remains about twenty minutes; the whey is again put over the fire, made nearly ſcald hot, and put into the tub to ſcald the curd about half an hour;

the beginning of February to Lady-day, and they take great care to keep their cows well three weeks or a month before they calve; the milk will riſe in proportion to the goodneſs of their keeping; very little attention is paid to the nature or ſort of the bull. The calves (thoſe few excepted which are reared to keep up the ſtock) ſeldom live a month ere the butcher's knife cuts the thread of their exiſtence; and cheeſe-making begins in March, from which time it continues till December.‡

The calves which are reared are fed principally with cheeſe-whey, and in May they are turned to graſs and left to ſhift for themſelves;† ſome careful dairy-women have tried

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hour, and then part of the whey is taken away, and the remainder remains with the curd till it is nearly cold; the whey is then poured off, the curd broken very ſmall, put into the vat and preſſed, where it remains nearly an hour; and then is taken out, turned, and put in again and preſſed till the evening, when it is taken out again, turned, and preſſed till the next morning: it is then taken out of the vat, ſalted, put into it again with a clean dry cloth round it, and remains in the preſs till the next evening, when it is taken out again, ſalted, put into the vat without a cloth, and preſſed till the next morning; and then it finally leaves the preſs, and is ſalted once a day for twelve days.

‡ The number of calves fatted in this diſtrict is immenſe—four hundred fat calves have been ſold in Shepton-Mallet market in one day. To this market, butchers from the neighbourhood of Bath and Briſtol reſort, and convey the carcaſes (whole) to thoſe cities in one-horſe carts. The veal is delicately white—ſmall in ſize, viz. from ſixteen to twenty-four pounds per quarter. The beſt is brought from a ſmall village called Batcomb; and its excellency may, perhaps, be aſcribed to their giving the calves ſmall doſes of metheglin in the milk, and keeping them in a dark place.

† In the South-Eaſtern part of this diſtrict, where the dairy land is chiefly applied to the making of butter, and ſkimmed milk cheeſe, the calves are taken from their dams at a fortnight or three weeks old, and ſuckled with ſkimmed-milk until the middle of May, when they are

tried to increaſe their growth, by giving them whey after they are put to graſs; but this plan is reprobated as doing more harm than good. When they become yearlings, they are ſubject to a diſorder provincially called the *quarter-ail*, which is a mortification beginning at the hock, and proceeding with aſtoniſhing rapidity to the vital parts, occaſioning death in a very few hours. The firſt ſymptom is lameneſs, and no cure has yet been found; the quarter affected becomes intirely putrid, whilſt the other quarters are in a ſound ſtate. This diſorder is, I think, the ſame with that known in Norfolk under the name of *gargut*; nor is it confined to theſe counties, but is, I believe, generally known; and an inveſtigation of the cauſe of the diſorder, which might lead to the diſcovery of a cure, is well worthy the attention of all agricultural bodies.

Cows are ſubject to a diſorder called *the yellows*, ſomething ſimilar to the jaundice in the human ſpecies. This diſorder frequently affects the udder, and brings on a falſe quarter, that is, a deprivation of milk in one teat, accompanied with a ſwelling and inflammation. For this, however, I can ſuggeſt a remedy which ſeldom fails, viz. flour of muſtard mixed with any liquid, two ounces a doſe, and repeating the ſame two or three times in the courſe of twenty-four hours.

The heifers are put to the bull in July, when they are about one year and half old; and the prevailing opinion ſeems to be, that thoſe which are kept from the bull a year longer do not turn out *good milkers*. The average produce

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are turned out to graſs at home, or ſold at ſome diſtant market for the ſame purpoſe. A few dairy-farmers, in this part of the diſtrict, have adopted the practice of making flax-ſeed and hay-tea, and mix it in the milk, with which the calves are ſuckled. This practice appears to anſwer very well, for the laſt month or ſix weeks of ſuckling. A. C.

of a dairy per day, may be calculated at about three gallons per cow, from Lady-day to Michaelmas, and from Michaelmas to Chriſtmas one gallon per cow per day.

Cows are kept till they are fourteen or fifteen years old, and when fatted they ſeldom get to a higher price than ſeven or eight pounds.

A dairy-maid can manage twenty cows ſo far as relates to the in-door work. The groſs produce of a dairy frequently averages twelve pounds per cow, and in ſome particular inſtances fourteen pounds; but this can only be done when cheeſe is at the preſent enormous price of near ſixpence per pound twelve months old; and fat hogs at ſixpence per pound.

The following eſtimate of the expences and produce of a dairy, ſuppoſing the land and the cows to be of the *firſt quality*, may, I truſt, be conſidered as tolerably accurate.

DAIRY TWENTY COWS.

Dr.	£.	s.	d.
To two milkers forty weeks, at 3s. per week	6	0	0
To a man's labour, winter ſerving cattle, changing their paſture, ſelling cheeſe, &c.	4	0	0
To dairy-woman, 4s. 6d. per week	11	14	0
To dairy utenſils, candles, ſalt, bruſhes, mops, and all other articles	4	6	0
To arnotto	1	0	0
To rent, thirty acres of ſummer paſture, 40s.	60	0	0
To ſkimming the ſame, and making ſix tons of hay	3	0	0
To rent of fifteen acres mown ground, 40s.	30	0	0
To making the hay, ſay thirty tons, at 12s. per acre	9	0	0
To tithe, taxes, &c. ſay	10	0	0
	139	0	0
To profit, intereſt of money, and the decreaſing value of cows included	113	10	0
	£252	10	0

N. B. A large dairy might be kept for 25s. per cow,

Cr.			
By ninety hundred of cheeſe, at 45s.*	202	10	0
By calves	15	0	0
By butter	10	0	0
By hogs	25	0	0
	£252	10	0

* At this time (January 1797) cheeſe of laſt year's making is worth three pounds per hundred.

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On a compariſon of this with the grazing account, it is apparent that the dairy occupation is more profitable than grazing, for this amounts to fifty ſhillings per acre, whereas the other is only twenty-eight ſhillings per acre. On account of population, the dairy ſyſtem ought alſo to be preferred, as one grazing farm of two hundred acres would afford a comfortable livelihood to four dairy families.

I am aware, that ſhould theſe obſervations induce an increaſe of dairies, and conſequently a more liberal ſupply of cheeſe, ſuch a declenſion in the price of that article might take place, as would bring all things again on a level, and advance the grazier's profit to an equality with that of the dairy-man.

Be this as it may, I think dairies ſhould be encouraged; for the arduous domeſtick labour and inceſſant employment which they bring on the female part of a farmer's family, will always prevent an undue increaſe thereof, unleſs their profits on a compariſon are very great indeed. But whilſt I thus recommend encouragement to the pail, I muſt do it with this proviſo, that a different mode of management be adopted from that now practiſed.

The cows of this diſtrict are almoſt univerſally depaſtured in the fields both ſummer and winter; in conſequence of which, the dung produced even by a large dairy is trifling indeed; hence ariſes a manifeſt declenſion in the fertility of the land, and you may diſtinguſh a grazing from a dairy farm at a great diſtance. In this exhauſted ſtate the dairy land muſt remain, unleſs a different ſyſtem of management be ſucceſsfully inculcated. Were I to ſuggeſt a plan of improvement, it would be the following: Let all dairy farms be accompanied with a due proportion of arable, perhaps *a fourth part*; let proper ſtalls and bartons be erected as a reſidence for the cows during the winter months; let cabbages,

turnips,

turnips, and potatoes, be grown for their winter ſubſiſtence; but above all, let them be well littered, and kept perfectly clean. By theſe means, a large ſupply of dung may be procured at a little expence; and if the farmer wiſh to increaſe the quantity, he need only dig up the waſte earth on the borders of the highways, and make a layer therewith in his farm-yard. This will abſorb the urine, and when mixed and incorporated with the dung, will conſtitute a manure highly fertiliſing. It cannot be ſufficiently regretted that this practice ſhould be ſo ſeldom adopted; for repeated experiments have taught, that one hundred acres of land thus managed, will keep more cows than one hundred and fifty acres under the preſent ſyſtem. *Artificial* graſſes will enable the dairy-man to turn his cows out a month or five weeks earlier than he was accuſtomed to do on *natural* graſs, and turnips, &c. will ſupply them with winter provender; ſo that the conſumption of hay will be greatly reduced, and more land may be devoted to ſummer paſture. It may be here objected, that the quality of the cheeſe and butter may be injured: of this I have my doubts. Artificial-graſs, in the months of March and April, will make as good butter or cheeſe as natural graſs; after this, the cows ſhould be put to the natural paſture, and the former ſhut up for mowing.

As to the effect of turnips and cabbages, I will obviate every difficulty by ſtating a ſimple recipe, whereby all diſagreeable flavour may be entirely prevented in the making of butter; and as to cheeſe, there is but little made at that ſeaſon; and if there were, the palate muſt be nice indeed, which could diſtinguiſh a difference of flavour.

RECIPE.

When the milk is ſet abroad in the leads, put one gallon of boiling water to ſix gallons of milk. It may alſo be prevented

vented by diſſolving nitre in ſpring water, and putting about a quarter of a pint to ten or twelve gallons of milk when warm from the cow.

SHEEP.

In the South-Eaſt part of this diſtrict, the ſheep are an improved ſort of the Dorſet, and many conſiderable ewe flocks are kept to the amount of four to ſix hundred each; they begin lambing about Chriſtmas, and the lambs are weaned in May.* After the lambs are ſhorn, which is at Midſummer, they are worth about fifteen ſhillings each.—The produce of an ewe, ſold at three years and three quarters old, may be thus ſtated:

	£.	s.	d.
Two lambs, at fifteen ſhillings†	1	10	0
Wool both of ewe and lambs	0	12	6
Folding	0	15	0
Ewe	1	8	0
	£.4	5	6

The ewes, forward with lamb in October, are ſold to the graziers who ſupply London and Bath markets with houſe-lamb, and ſometimes they bring thirty-five ſhillings per head, though folded to the time of ſale.

Some farmers buy wedder lambs about Midſummer (ſhorn) at fifteen ſhillings, and keep them about twenty-two months, conſtantly folding them: they are then ſold (unſhorn) to the graziers occupying the marſh lands, at the price of twenty-ſeven to thirty-eight ſhillings each.

* Would it not be more adviſeable to protract the lambing to March or April?

† Lambs have been ſold in the autumn of 1796 for nearly double this price.

	£.	s.	d.
Folding	1	0	0
Wool	0	4	0
Average price ſold at	1	12	6
	2	16	6
Deduct firſt coſt of lamb	0	15	0
	£.2	1	6

The latter ſtock requires leſs care than the former, and at the ſame time enables the farmer to manure more land; for they may be folded through the whole winter on the paſture land.

The number of ſheep kept in this diſtrict is immenſe, and folding unremittingly purſued.*

Lately ſome of the *Leiceſter ſheep* have been brought into this diſtrict by Mr. POSTER near Yeovil, and by Mr. LOWMAN near Crewkerne. The carcaſes of ſome have been ſold in Crewkerne market, and were remarkably fat, and highly eſteemed for their delicious flavour; but with all theſe good qualities, if they cannot walk a mile to the fold, they never will gain much ground in this country.

The Sheep-breeding ſyſtem of White-Lackington and its neighbourhood.

In a regular flock of three hundred ewes, it is neceſſary to rear all the chilver or female lambs; for if the twins are

* Mr. JEANES, of Alhampton near Caſtle-Cary, has exhibited before the Bath Agricultural Society repeated proofs of his ſkill in the cure of rotten ſheep; and has, in his poſſeſſion, a variety of corroborating teſtimonies, under the ſignature of reſpectable ſheep-farmers, who have availed themſelves of this uſeful diſcovery.

ſufficient,

ſufficient, after all accidents, to keep up a regular ſucceſſion, it is as much as can be expected. The ſtock then will conſiſt of

150 Chilver lambs
150 Ewes from one to two years old
150 ditto from two to three years old
150 ditto three years old.

600 in the whole.

From this ſtock are ſold one hundred and fifty pur (male) lambs, and one hundred and fifty old ewes, yearly. The lambs are ſold about Midſummer, and the old ewes are bought by ſucklers, for the London market, in September or October, about which time they begin to drop their lambs. The ſtock ewes are folded for eight months, viz. from the beginning of April to the end of November; and the ſale ewes are folded about three months. Four hundred and fifty ſheep will amply manure one-third of an acre each night; and this is conſidered as far ſuperior in its effect to dung, or to fifteen quarters of lime, which is the ſubſtitute with people who do not keep a flock. By the following compariſon, the value of the fold may be fairly eſtimated:—

	£.	s.	d.
Fifteen quarters of lime, at 1s. 6d.	1	2	6
Carriage ſeven miles	0	15	0
Mixing, ſpreading, &c.	0	5	0
	£.2	2	6

The before-mentioned flock will annually fold upwards of ſixty acres; and the value of ſuch manuring will amount to one hundred and twenty-ſeven pounds ten ſhillings; but as it muſt be admitted that the benefit of the fold is not ſo durable

durable as either dung or lime, we will deduct one-third, and call it eighty-five pounds.

If the pur-lambs are not ſold, but kept on, they are conſtantly folded till they are two years and a half old, at which age, by good keeping on vetches, clover, and turnips, they are brought to the value of two guineas to two pounds fifteen ſhillings, and are then ſold to the grazier to finiſh.

By this ſyſtem of folding, the ſheep are kept free from the *foot-rot*; and as the graſs is not tainted by their reſting on it, more ſheep can be kept per acre.

Produce of a Flock of three hundred Ewes.

	£.	s.	d.
One hundred and fifty male lambs, ſold at Mid-ſummer, after being ſhorn, at 1l. 1s. —	157	10	0
Wool of three hundred lambs, at 2s. ——	30	0	0
Ditto of one hundred and fifty young ewes at 4s.	30	0	0
Ditto of three hundred full-grown and aged ditto, at 3s. 6d. — ——	52	10	0
One hundred and forty old ewes, ſold in September, at 40s. each ——	280	0	0
(N. B. Ten allowed for accidents)			
Folding ſixty acres — ——	85	0	0
	£.635	0	0

One ſhepherd at eight ſhillings per week will take care of the flock, change the fold, and have time for other work; and the hurdles will be attended with an annual expence of about three guineas.

Corn, after the fold, is much greater in quantity, and better in quality, than after any other manure.

Paſſing from Crewkerne to the Southward, you enter one of thoſe excavations, or large vales, for which this county is remarkable; compriſing the villages and hamlets of Clapton, Seaborough, Wayford, Woolmingſton, Partington, Cricket-Thomas, Winſham, &c.

Within this vale commences a diſtrict of twenty miles ſquare, (one half in Somerſet and the other in Dorſet) which ought to be noted for ſupplying the ſummer markets at Exeter with *weanling calves*. Theſe calves drop in February and March, are ſuckled by their dams for three weeks, when they are houſed, and ſuckled by hand with warm ſkimmed milk until the month of May, at which time they are ſold to the drovers for the market before-mentioned. At Exeter, they are bought by the Devonſhire farmers, and depaſtured for three or four years, when they are diſpoſed of to the Somerſet graziers, who fatten them for the London market: thus we ſee, that part of what is called the Devonſhire breed of cattle is the produce of a ſmall diſtrict of the counties of Somerſet and Dorſet; a breed which will probably, ere long, be generally acknowledged to be equal to any other in the kingdom.

The dairy at Ayſhcombe farm, within the pariſh of Wayford, is a good ſpecimen of the Devonſhire breed.*

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* Mr. WHITE PARSONS alſo, of Ilcheſter, has exhibited before the Agricultural Society at Bath, for the premium offered by that Society, a young bull of his own breeding, together with the ſire and dam of the *Devonſhire* race; and all breeders of horned cattle were challenged by him to produce, at the ſaid exhibition, any three of equal value for ſtock; but no competitor appeared, and the premium was deſervedly adjudged to him.

CHAPTER XIV.

RURAL ŒCONOMY.

THIS county is very populous, and the wages low; notwithſtanding there are very conſiderable manufactures.

Men's daily labour in winter is 1s. per day, with cider.*
Ditto in ſummer 1s. 4d. ditto
Women's daily labour in winter is 6d. per day, with cider.
Ditto in ſummer 8d. ditto
Mowing graſs 1s. 4d. per acre, and one gallon of cider.
barley 1s. od. ditto ditto
Reaping wheat 4s. od. ditto, two gallons and half of cider.
And all other labour proportionably cheap.

Price of proviſions ſomething leſs than in the North-Eaſt Diſtrict of the county.

* Wages are now (1797) advanced one-third at leaſt.

CHAPTER XV.

POLITICAL ŒCONOMY, *as connected with or affecting* AGRICULTURE.

ROADS.

FEW countries can boaſt better turnpike-roads than may be found in this diſtrict.

From Wells to Bridgwater, and from Croſs to the ſame town, they are, comparatively ſpeaking, as ſmooth as a gravel-walk. This may, in a great meaſure, be attributed to the great attention paid to the breaking of the ſtones, which is done by men with ſmall ſledges in a ſitting poſture; and the ſtones are reduced to the ſize of a pigeon's egg, at an expence of ſix-pence per ton weight.

CANALS.

An act was obtained, laſt ſeſſions of parliament, for cutting a navigable canal through the Eaſtern part of this diſtrict, and the ſame is now in execution. It commences at the collieries near Mendip, and, paſſing through the town of Frome, divides itſelf into two branches, one joining the Kennet and Avon Canal near Bradford, and the other extending itſelf through Wincanton to the borders of Dorſetſhire.

MANUFACTURES.

A conſiderable clothing manufacture has been lately eſtabliſhed, by ſome gentlemen of Wiltſhire, at Chard; and round

round Ilminſter, Chard, Crewkerne, Martock, Yeovil, &c. there are conſiderable manufactures of narrow cloth, from four to ſeven ſhillings per yard; the quality of which, both for appearance and duration, is not ſurpaſſed in the kingdom. In theſe, great numbers of men, women, and children, are employed; but the country being very populous, there is no want of hands in agriculture.

There are alſo many manufactures of coarſe linen, ſuch as dowlas, tick, &c. alſo of gloves, girt-web, &c. all of which give animation, wealth, and comfort, to the inhabitants of this rich and delightful region.

SOUTH-WEST DISTRICT.

CHAPTER I.

GEOGRAPHICAL STATE AND CIRCUMSTANCES.

THIS diviſion of the county has nearly an equal portion of rough mountainous hills, and rich fertile ſlopes and plains.

The climate, particularly of that part which is called the *Vale of Taunton-Dean*, is peculiarly mild and ſerene; and the ſoil highly fertile and productive. The eye is agreeably relieved by a judicious mixture of arable and paſture; and if it be contraſted with ſome parts of the Northern Diſtrict, it may emphatically be called the Land o *Canaan*.

There are, however, certain parts North-Weſt of the ſaid vale which are mountainous, and ſubject to that mutability of weather, and moiſture of air, generally found on elevated ſituations.

Quantock, Brandon, and Dunkry-Hills, may be noted for their wild and rugged ſcenery; and the part which is called *Dunkry-Beacon*, is the higheſt land in the whole county.

This diſtrict may be ſubdivided into two leſſer diſtricts, including, 1*ſt*. the pariſhes of Taunton, Wilton, Trull, Pitminſter, Biſhop's-Hull, Bradford, Buckland, Ninehead, Wellington,

lington, Sampford, Hill-Farrence, Oake, Norton, Cheddon, Staplegrove, Thurloxton, North-Petherton, Monkton, Kingſton, Cothelſton, Biſhop's-Lidiard, Heathfield, Halſe, Aſhpriors, Fitzhead, Milverton, Langford-Budville, Thorne, Bathialton, and Runnington.

Theſe pariſhes comprehend what is generally called the *Vale of Taunton-Dean.*

SOIL.

The ſoil is a rich loam, interſperſed in ſome places with clay, as part of Bradfield, Buckland, North ſide of Wellington, part of Sampford, Hill-Farrence, Ninehead, Oake, and Heathfield; and in other parts with ſand, or a lighter mould; as Kingſton, Biſhop's-Lidiard, Halſe, Fitzhead, Milverton, Langford, Thorne, and Runnington.

Theſe hundreds, together with that of North-Curry, are principally held under the churches of Wincheſter and Wells, and the lands are chiefly poſſeſſed by ſmall proprietors.

The ſecond diviſion of this diſtrict includes the pariſhes of Combflory, Bagborough, Stowey, Stoke-Courcy, Crowcombe, Stogumber, Williton, Watchet, Dunſter, Minehead, Porlock, Timberſcombe, Cutcomb, Withypool, Winsford, Dulverton, Wiveliſcomb, &c. &c. together with the foreſt of Exmoor.

The ſoil of ſome part of this diſtrict is but little inferior to that of the former; but the hills and foreſts are for the moſt part left in a ſtate of nature. The corn land is in general good; and the watered meadows in the pariſhes of Crowcombe, Stogumber, Monkſilver, Nettlecomb, Dinniford, Dunſter, Dulverton, &c. are as good as any in the county. If we appreciate land by its capacity to keep ſtock throughout the year, *watered meadows* are invaluable; and it is to be hoped, that the different reports, which will no

doubt

doubt be ſent to the Board of their importance, will induce a general application of water, wherever it be of good quality, and there is a poſſibility of conveying it. A great part of theſe watered lands lie on ſteep declivities; and as the water paſſes quickly over them, and never lies ſtagnant, not a ruſh can be ſeen; this is not always the caſe in *low* water meadows, which for want of proper draining are much incommoded by them. Meadows which lie in a low ſituation and nearly on a level, ſhould be thrown up into convex beds about thirty or forty feet wide, along the ridges of which the water ſhould be conveyed, flowing regularly at the different outlets, and having a free paſſage in the trenches lying between the beds.

The expence of doing this ſeldom exceeds ſix or ſeven pounds per acre, and the benefit is frequently twenty or thirty ſhillings per acre per annum.

Excepting thoſe inſtances where water paſſes through a town, or after ſudden floods carries with it rich particles of vegetative matter, the lands receiving it near the ſpring-head, are ſuppoſed to be the moſt benefited; and the quicker it is made to paſs over the land, and the greater the *impetus* given by a large quantity thrown at once, the quicker and more powerful are the effects.

The firſt watering commences in November, and is continued with regular intermiſſion from that time till February. Theſe meadows are frequently, in this temperate climate, fit to receive ewes and lambs, as early as Candlemas; and a conſtant and regular ſucceſſion of food from that time to the beginning of May, enables the farmer to view his flock with the utmoſt complacency, and to look with pity on his neighbours, deſtitute of ſuch a reſource in theſe trying months.

At the beginning of May, the land is unſtocked and again watered; after ſix or ſeven weeks they mow from thirty cwt. to forty cwt. per acre. *Eſtimate*

Eſtimate of the value of ſuch Land.

	£.	s.	d.
Spring-feed from Candlemas to May-day —	1	5	0
Thirty-five cwt. of hay per acre, at 30s. per ton	2	12	6
After-graſs to November ——	1	1	0
	4	18	6

Conſidering it as connected with a ſheep and corn farm, all eſtimates muſt be below its real value; for it is well known, that, according to the probable plenty or ſcarcity of food in the months of February, March, and April, does a farmer apportion his ſtock for the whole year. Should turnips fail, his only reſource is the hay-mow; his ewes ſuffer, his lambs become ſtunted and of little value. His meadow-ground devoted to the ſcythe is *ſpring fed*, whereby he ſuffers a diminution of ten hundred of hay per acre. Theſe are but a few of the many evils attendant on a deficiency of food in the months before-mentioned, and muſt raiſe the importance of water-meadow in the eyes of all diſcerning huſbandmen; beſides, theſe lands require no dreſſing, but will preſerve an undiminiſhed vegetation from year to year, and will enable the farmer, by means of the ſheepfold, to enrich his other lands without injury to theſe.*

* On the demeſne of J. F. LUTTRELL, eſq; of Dunſter-Caſtle, a large tract of land, in a convertible courſe of tillage, is manured with water. The uſual rotation of crops is, 1ſt. Wheat on the ley; 2d. Turnips; 3d. Barley and artificial graſſes.

It is then ſuffered to remain in paſture two years, and during that time it is, at ſtated intervals, regularly flooded by a ſtream deſcending from the adjacent hills.

The courſe is then renewed, and this has been the conſtant practice for many years.

The produce has been in general very conſiderable, viz. of wheat forty or fifty buſhels, and of barley fifty and ſixty buſhels per acre.

As

As the different modes of irrigation have been long before the public in a treatiſe publiſhed by Mr. BOSWELL, of Piddletown in Dorſetſhire, and by other writers in different parts of the kingdom, I ſhall not further enlarge upon this ſubject, than merely to caution the farmer, unexperienced in this branch of improvement, not to feed with *ſheep* in the *autumn*; for, though it may be done with the utmoſt ſafety in the ſpring, it is frequently fatal in the *autumnal* months.

CHAPTER II.

STATE OF PROPERTY.

THE major part of the five hundreds of Taunton-Dean, conſiſts of cuſtomary lands of inheritance, held under the Lord Biſhop of Wincheſter, paying an annual rent. Theſe cuſtomary lands paſs by ſurrender, paying to the lord fines and heriots on alienations. There are alſo many ſingular cuſtoms within the manor, difficult to be underſtood even by the tenants themſelves. The deſcent is called that of *Borough-Engliſh*, with ſome variations. The wife is heir to her huſband; and it is no uncommon thing for a widow, on the death of her huſband, having children by him, to marry again, and carry her eſtate into her ſecond family, to the diſinheritance of her firſt.

If the fines, heriots, and other incidental incomes within the manor, were commuted with the lord, for an increaſe of the annual high rents; the lands enfranchiſed by act of parliament, and to paſs in deſcent as other lands of inheritance by common law; the income to the biſhoprick would be more certain, and the preſent inconveniencies avoided. In courſe of time, the proprietors would enlarge their poſſeſſions, and the manor would be brought into farms of ſufficient extent for the employment of a team, which is not the caſe at preſent.

CHAPTER III.

MODE OF OCCUPATION.

THE farms in this diviſion are rather leſs than in the laſt, but the huſbandry is much the ſame, only there is more land in tillage. The mountainous lands are uncultivated, and are depaſtured with ſheep and young bullocks.

In the vicinity of theſe uncultivated hills, viz. at Bicknoller, Elworthy, Brompton-Rolph, and Old-Cleeve, oats are the principal corn crop; barley and wheat are grown but on a ſmall ſcale.

The rotation of crops varies from that of Taunton-Dean. Here wheat is generally ſown on the ley, and none but very ſtiff land is fallowed. Turnips are much cultivated, but they are very laviſh in the conſumption, giving too large a ſpace of ground to the ſheep at a time, making thereby great waſte.

The dry uplands are devoted to tillage, and the rich lowlands to grazing or dairy. On the former, wheat, beans, peaſe, and vetches, are the principal crops; and thoſe lands which are capable of improvement by watering, (of which there is a conſiderable proportion) are ſo managed as to produce excellent ſpring-feed for ewes and lambs, together with abundant crops both of hay and after-graſs; but the water being frequently ſcarce, the water-courſes are frequently a ſource of litigation.

There are very few eſtates entirely in paſture. Every little farmer is fond of the plough; but in moſt of theſe ſmall farms, where there is not ſufficient employment for a team, the occupier's ſituation is not better than that of a day-labourer.

Much

Much of the arable land will ſpontaneouſly produce a variety of excellent ſorts of graſs, and ſhortly become good paſture, if laid down in an huſbandlike manner. The artificial graſſes here ſown are, broad and white clover, trefoil, and ray-graſs, called here *evergraſs*. Many farmers think the latter impoveriſhes the ſoil; but they ſubſtitute no other perennial in its ſtead.

LEASES.

By the cuſtom of the manor of Taunton-Dean, the tenant is not, without a licence from the lord, to let his cuſtomary lands for more than a year and a day; but to encourage good huſbandry, it has been uſual of late years to grant rack-rent leaſes for ſeven, fourteen, or twenty-one years.

The tenant covenants with the landlord, not to ſow rape, hemp, or flax; theſe crops being conſidered as great exhauſters, making no return in manure. It has alſo been common to allow the tenant church and poor-rates; but it is to be doubted whether the poor are in this caſe better provided for, although the rates for their maintenance increaſe; for the occupiers, when no ways intereſted, are apt to be remiſs in looking into the poor's concerns.

Of late years, this burthen has been thrown on the tenant, by way of raiſing his rent.

At the commencement of the term, it is uſual for the landlord to put the premiſes in compleat repair; after that, the tenant finds reed, ſpars, and carriage of materials, during the term; and the landlord, timber, ſtones, and lime. The handicraftſmen are paid between them.

In this way, the landlord and tenant being mutually intereſted, the expence of repairs is leſſened, and the buildings are kept in better order.

The

The tenant alſo covenants to take care of ſtapling and timber trees, and to carry one hundred and twenty horſe-ſeams (about twelve cart-loads) of dung, or fifteen hogſheads of lime, or a proportion of both mixed with earth, on every acre of land converted to arable, and to take but three crops of corn before the ſame quantity be renewed. He alſo covenants never to ſow two crops of wheat in ſucceſſion, nor to convert to tillage any maiden or old paſture without leave, under the penalty of five pounds an acre per annum for the remainder of the term.

CHAPTER IV.

IMPLEMENTS.

THE ploughs, drags, harrows, rollers, waggons, and carts now uſed, are much the ſame as they have been for ſixty years paſt. Of late, indeed, the double-furrow plough has been introduced, and ſeems to gain ground; all who have tried it acknowledge its ſuperiority for light ſoils, and for ploughing the barley or turnip land.

CHAPTER V.

INCLOSING, &c.

FENCES.

THE beech hedges, around Dulverton, Dunſter, &c. are not only beautiful to the eye, and an excellent fence and ſhelter, but are a ſource of annual profit to the proprietors.

The banks on which they are planted are ſix or ſeven feet high, and between four and five feet wide at the top; the mouldering of the ſides is frequently prevented by a dry ſtone wall, four feet high. There is no ditch; and the hedge conſiſts of three rows of beech, planted on the top of the bank, at about one foot diſtance. Their growth is very rapid, and they ſeem to defy the deſtructive qualities of the ſea-breeze, ſo fatal to the white-thorn and moſt other plants; when at maturity, the middle row is cut to the ground, and the outſide rows plaſhed. The quantity of fuel ſupplied by theſe hedges is very conſiderable; and the only objection that can be made to them is, that the earth uſed in the conſtruction of the banks is ſo conſiderable a quantity, that a large portion of the field is robbed of its vegetable matter, and rendered for ſome years unproductive.

CHAPTER VI.

ARABLE LAND.

THE common fields in this diſtrict are ſo few, and the unincloſed waſtes (a portion of Blackdown and Pickeridge-hill excepted) ſo inſignificant, that little improvement can be made in that way. There are a few low common meadows, where frequently the hay crop (provincially, *the tonſure*) belongs to one man, and the after-graſs to another, by which means ſuch lands are totally neglected, being neither drained nor manured.

The waſte lands, on that part of Blackdown which lies within this county, are ſuppoſed to exceed a thouſand acres; they are ſo ſituated on the declivity of the hill, that floats might eaſily be made to convey the water, iſſuing from the ſprings, over the land.

And if the water ſhould not be found to fertilize, it would not be difficult or expenſive to convert theſe floats into drains, and thereby render the ground more dry and healthy.

The occupiers of eſtates contiguous to theſe hills ſtock them with young cattle in the ſummer months, but the diſtant tenants reap little or no benefit.

On ſome of their land they have fallows, and wheat alternately, manuring with lime.

A mixture of the earth of the headlands with lime and rotten dung, is the general manure for the ploughed lands, and ſoapers' aſhes and rotten dung *alone* for the paſture.

The method commonly adopted for mixing the earth, lime, and dung together, is, to carry the dung and ſpread it on the headlands, or on heaps of earth collected on different

parts of the field, and then put the unſlaked lime on the dung, covering it up with earth till it is ſlaked, and fit for mixing; but as the lime is by this method diſſolved upon the dung, the richeſt part of the manure is conſumed by the lime, or carried off in vapour.

Drilling has been tried in this part of the county, particularly by two farmers of Halſe, and by Mr. ANDERDON of Henlade. On light poor ſoils, it has been found to anſwer, but in rich ſtrong loams, the corn has proved too rank.

Mr. ANDERDON has drilled all his corn for twenty years paſt. At firſt he formed an experimental field of four acres, divided into ſeveral equal parts, where he tried drilling various crops, in compariſon with ſowing them broadcaſt, and finding his drilled and horſehoed crops of beans, wheat, peaſe, turnips, &c. ſufficiently encouraging to proceed to acres, he has continued the practice ever ſince; by which means he has certainly improved his land, and eradicated weeds.

He at firſt uſed WILLEY's drill plough for ſowing double rows, which is to be ſeen in the repoſitory of the Society of Arts in London.

With this, he drilled two rows, about a foot aſunder, on five-feet ridges, leaving intervals of four feet for horſe-hoeing. Since, he has drilled ſingle rows on ridges of three feet, by which means he keeps his ground cleaner, and has a produce equally good with the double rows. Of wheat, he generally reaps from fifteen to twenty-four buſhels per acre, which is about the average of the wheat crops of his pariſh ſown in the broadcaſt way.

In the year 1791 he reaped from one field twenty-nine buſhels per acre. The field was drilled in ſingle rows, three feet aſunder; this may be called the Tullean method of drilling, and was practiſed many years ago by that enlightened

ened agriculturiſt JETHRO TULL. The prevailing method of the preſent day is, to drill at intervals of ſix, nine, or twelve inches. Though the practice of drilling corn has been highly extolled by ſome, and aſtoniſhing inſtances of produce recorded, yet the writer of this report cannot find that it gains ground in the county of Somerſet. If the advantages reſulting from the practice were ſo great as they are repreſented, ſurely the common farmers would adopt it. The ſaving of ſeed would alone be a ſufficient inducement, and in a national point of view would be worthy the attention and encouragement of the legiſlature. *Experience*, that beſt guide in all agricultural purſuits, has ſhewn that there are ſubſtantial objections to the practice, and they may be compriſed under the following heads:

1ſt. The difficulty in getting compleat drilling and hoeing machines, and labourers ſkilful enough to conduct the proceſs.

2d. The danger of having too *thin* a crop, whereby it is rendered more ſubject to ruſt, blight, mildew, and the effect of wind, than *thick* broadcaſt crops.

3d. Rankneſs in the ſtraw, ſubjecting it to drop before the grain is perfected.

4th. Lateneſs, and irregularity in ripening.

Let us now ſtate the advantages:

1ſt. Saving of ſeed.

2d. Strength and vigour communicated to the land by well-timed hoeings.

3d. Deſtruction of weeds.

How far theſe advantages counterbalance the diſadvantages, I ſhall not take upon me to determine. I can only ſay, that my trials (and they have been repeatedly made on a large ſcale) have been uniformly unfortunate. In dry ſeaſons, the drilled corn, particularly barley, has been not only

late, but *uneven* ripe, and this is an inſurmountable obſtacle to the ſale of it for the purpoſes of malting; and in wet ſeaſons the growth of the ſtraw has been ſo encouraged by the hoeing, that it has dropped before harveſt, and the grain has been but of little value. Laſt year I divided a ten-acre piece, and drilled part with white Poland oats, in equidiſtant rows of one foot, after the rate of one buſhel and a half, and ſome part after the rate of two buſhels and a half per acre.

This was done the beginning of April; three weeks after I ſowed *broadcaſt* the remainder of the field, with the ſame ſort of ſeed, after the rate of ſix buſhels per acre. Though ſown laſt, the *broadcaſt* was ripe a fortnight before the *drilled*. The grain was of better quality, regularly ripe, and the produce ten buſhels per acre more. The drilled crop, *ſown thick*, was better than the other. Were I to renew my practice of drilling, I would (particularly in ſpring crops) depoſit nearly double the quantity of ſeed recommended by the advocates for drilling, and at leaſt a month before the uſual time of ſowing broadcaſt.

For beans, peaſe, vetches, turnips, potatoes, carrots, and all groſs-growing plants and roots, *drilling* cannot have a more warm advocate than myſelf; and with reſpect to wheat crops on light ſandy ſoils that are ſubject to weeds, the operation of hoeing, which neceſſarily follows that of drilling, may frequently be of eſſential ſervice not only to the wheat crop, but to the ſucceeding ones; but with reſpect to corn in general, and particularly *barley* and *oats*, I muſt for the preſent demur, at leaſt, till I have ſeen better proofs in favour of the drill ſyſtem. Perhaps, indeed, the ill ſucceſs which I have experienced, and particularly the late ripening already mentioned, might have been owing, in ſome meaſure,

ſure, to the ſyſtem of ſaving ſeed being carried to too great an exceſs.*

I cannot

* After giving every tribute of merit to the author of this Survey, which Mr. ANDERDON thinks he richly deſerves, Mr. A. feels himſelf, in ſome meaſure, called upon to ſay ſomething to the objections ſtated againſt the practice of drilling, which carry with them very great plauſibility. And, indeed, the firſt objection muſt be totally admitted, in all its force.

To the ſecond, he anſwers, His wheat crops, though not always free from ſuch complaints, (when general) have been leſs ſubject to ruſt, blight, and mildew, than broadcaſt crops; and never more ſubject than theſe to the ill effects of wind. But frequently, when the wind has blown the ſtanding corn, ſo as to bend it on one ſide, and the weight of the ears has kept it in that poſition, no injury has enſued, the corn has ſtood very well, and ſo as to be eaſily reaped.

To the third objection, he admits, that the ſtraw is ranker, but ſtands ſtiff, and is not more ſubject to fall than the broadcaſt; generally, not ſo ſubject.

Theſe advantages attending his drilled and horſe-hoed crops, Mr. A. imputes to the effects of his making ſtone-lime a principal ingredient in his compoſt-heaps.

To the fourth objection. He puts in his wheat crops in good ſeaſon, and has never failed of reaping them by the middle of Auguſt. But, in very expoſed ſituations, he thinks this objection may be fatal, though he has never found it ſo in the vale of Taunton. As a proof of his harveſting his drilled wheat in good order, as well as in good ſeaſon, his bailiff aſſures him, he has not reaped a buſhel of grown-wheat in the courſe of thirteen years paſt.

As a demonſtration of the fair chances of drilled crops, he has threſhed one field of drilled and horſe-hoed wheat of laſt harveſt (not the beſt) which grew on hilly ground. It is a field of three acres, and produced ſixty-three buſhels and one peck. It was reaped July the 30th, (1794) and there cannot be a finer ſample of wheat for ſeed, or for the miller. This crop was ſecond wheat.

Mr. ANDERDON drilled a field of oats, without horſe-hoeing, in equidiſtant rows, except one part ſown broadcaſt, by its ſide, for an experimental trial. It was a light bad ſort of oat, the Tartarian, but both very good crops. No one, by the eye, could diſtinguiſh which was beſt. On cutting and threſhing a perch of each ſort, adjoining

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I cannot diſmiſs this ſubject without paying a juſt tribute of approbation to that ingenious mechanic and enlightened agriculturiſt, the Rev. J. COOKE, whoſe drill-machine, and horſe-hoe are well adapted to the purpoſes for which they are deſigned. Though we cannot accord on the ſubject of the drill-huſbandry, I muſt give my unqualified aſſent to his general principles reſpecting the preparation of land for arable crops; and I verily think, that his inſtruments called the *ſcuffler*, and *ſcarifier*, are the beſt contrivances I ever beheld, for the pulverization of the ſoil, and the deſtruction of weeds.

The uſual ſeed-time for wheat is November, but it is frequently ſown after turnips, ſo late as January or February, notwithſtanding which, the crop is ripe and harveſted, in a favourable ſeaſon, by the middle of Auguſt. Coloured peaſe are planted about Candlemas, white peaſe are planted at Lady-day, horſe-beans from Candlemas to Lady-day; oats are ſown in March, barley in April and the beginning of May; peaſe are harveſted rather before wheat, barley at the end of Auguſt, oats and beans in September.

Of wheat they generally ſow two buſhels, peaſe four buſhels, beans five buſhels, planted by women with dibbles or ſetting-ſticks promiſcuouſly all over the land, and the crop is ſeldom weeded; oats five buſhels, barley three buſhels and a half per acre.

Of late a few farmers have drilled their beans in rows twenty inches aſunder, horſe-hoeing them; others thirteen or fourteen inches aſunder, hand-hoeing the alley, at the

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to each other, in the beſt part of the field, the broadcaſt produced at the rate of ſixty buſhels an acre, the drilled at the rate of ſeventy-two buſhels, yielding a ſuperiority of twelve buſhels per acre in favour of that drilled. R. P. A.

expence

expence of four ſhillings per acre; in both theſe ways, they have depoſited nearly the ſame quantity of ſeed as in the promiſcuous planting, eſpecially in the cloſer rows.

The produce has been uniformly ſuperior to thoſe planted in the old method, and the land kept cleaner for enſuing crops.

Rotation of crops on the clayey loam.

1ſt. Fallow manured with ten cart-loads of dung, and ſixty or eighty buſhels of lime per acre, mixed with the earth of the head-lands.

2d. Wheat
3d. Beans
4th. Barley
5th. Clover
6th. Clover
7th. Wheat.

The grub has of late years ſo attacked the wheat ſown on the clover lays, that this practice is in ſome meaſure diſcontinued.

In the foregoing rotation, the crops are good; ſeldom leſs than twenty-five or thirty buſhels of wheat, and the ſame quantity of beans. The beans are planted promiſcuouſly, after the rate of five buſhels of ſeed to an acre; and after beans they ſometimes ſow the winter vetch; feed it twice in the ſpring, and prepare the land for wheat.

In no county are the farmers more attentive to the mode of ſowing wheat, or laying up their lands in ſuch form as to ſecure them from injury by winter rains; and the quality of the grain is ſuch, as to induce the farmers of Suſſex, Hants, and Berks, to purchaſe it for *ſeed* at Weyhill fair at a great price; ſeldom leſs than ten ſhillings and ſix-pence per buſhel.

An implement called a mattock is much uſed here, and is peculiar, I believe, to the Weſt of England; it is of great ſervice in ſowing wheat and peaſe on clay lands; the ridges conſiſt of ſix furrows, with a furrow left unploughed between each ridge, which is called a *comb*. The labourers with

with a mattock chop the furrows abroad, and bring part of the earth againſt the comb; the ſeed is then ſown and harrowed with two horſes abreaſt, each horſe going on the comb; they then (with a plough called a combing plough) divide it; the plough being conſtructed to throw one half of it as a furrow to the right, and the other to the left; the labourers then go over the ridges a ſecond time with their mattocks, and ſtrike thoſe furrows towards the middle of the ridges, which effectually covers what grain the harrows may have left uncovered, and leaves the ridges in the ſhape of a neat aſparagus bed.

This method is very well calculated for clayey and wet lands, where it would be dangerous for the cattle to trample on the ground.

An acre a day is the uſual quantity ploughed.

On light loam, the following rotation is practiſed.

1ſt. Wheat. 2d. Peaſe. 3d. Barley. 4th. Winter-Vetches, which produce a good feed by the latter end of March or beginning of April, and are fed a ſecond time at the latter end of May; the land is then ploughed once, and ſown with turnips, which are hoed and conſumed before Chriſtmas; and 5th. Wheat again.

A better ſyſtem is adopted by ſome, viz. ſubſtituting barley as the fifth crop, on which clover is ſown. The clover is well manured the enſuing winter, ſpring-fed, and cut in the autumn for *ſeed*; after which wheat is ſown on one ploughing as the ſeventh crop.

In the pariſh of Biſhop's-Lidiard they frequently plough their wheat-ſtubble ſoon after harveſt, give it a good dreſſing of rotten-dung, and let it lie in ridges during the winter. In the months of February and March they ſow carrots, which are fit to be dug up the latter end of July; they then

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ſow turnips or plant cabbages, and after theſe ſow barley and graſs ſeeds. On rich ſandy loam this huſbandry cannot be too much extolled.

It is not the general practice within theſe hundreds to give the arable land a compleat fallow. They more frequently introduce what they call *a pin fallow*, which is ploughing after vetches, clover, or beans, two or three times, to prepare for a ſucceeding crop of wheat. In this way they put on a good dreſſing of rotten dung before the laſt ploughing.*

RHUBARB.

At Williton near Watchet, the Turkey rhubarb has been cultivated, and brought to great perfection by Mr. BALL, ſurgon, of that place. His management of this root having been particularly deſcribed in the annual publication of the Society of Arts, &c. I ſhall not notice it here, and ſhall only add, that equal attention and ſucceſs have attended the exertions of JAMES BERNARD, eſq; of Crowcombe, in the ſame article, though in a different climate and ſoil.

Mr. BERNAND has alſo lately introduced to this country ſome farmers from Norfolk, whoſe example, it is to be hoped, will excite in the neighbouring renters a diſpoſition to clean and meliorate their land, by turnips and other improving crops.

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* The general mode of carrying the harveſt crops in this part of the country is a ſtriking object to a farmer from a different part of the kingdom—it is on horſes' backs. The face of the country is indeed ſo generally ſteep as to render this cuſtom not ſurpriſing to a ſpectator—even manure is conveyed to the land by ſingle horſes, in a dung-pot fixed on each ſide of a pack-ſaddle. In carrying corn, a large wooden crook on each ſide of the ſaddle is laden with the ſheaves, and when diſcharged in the barn, or at the mow, the horſe is ridden away to be reladen, and in this way greater expedition is made than by waggons, or any other mode of conveyance. U. C.

CHAPTER VII.

ORCHARDS.

BEFORE I quit this rich and delightful vale, I muſt not paſs by unnoticed, their orchards, from which cider is made in the higheſt perfection. There are many gentlemen in the neighbourhood of Taunton who ſell their beſt cider for five or ſix pounds per hogſhead; and it is ſuppoſed that they poſſeſs an art, peculiar to themſelves, of conducting the fermentation, and thereby preſerving a rich and delicious flavour.* The beſt fruit delights in a ſtrong clayey ſoil, and it

* In part of this county, the art of making ſweet rich *cider*, which ſells from three to five or ſix guineas per hogſhead, is reduced to a ſyſtem; and there are ſome perſons who, on being furniſhed with a ſufficient quantity of apples, undertake to make and carry it through the whole proceſs at the price of fifteen ſhillings a hogſhead. But the method of doing this they endeavour to keep a profound ſecret. The writer of this note, who is in poſſeſſion of this method, and has practiſed it ſucceſsfully for his private uſe, deſirous that all makers of cider, who think it worth their attention, may profit by it, takes this opportunity of making it more generally known:

PROCESS.

The apples being ripe, but not rotten, and all of the ſame ſort, that the fermentation may be more uniform, grind and preſs them moderately, but by no means cloſely. Pour the liquor into a tub to kive, and when the brown head (which will riſe on it ſooner or later as the weather is more warm or cold) begins to crack, and the white froth appears in the cracks level with the ſurface of the head, it muſt be drawn off in order for tunning into your veſſel. At this time a great deal of feculence is thrown to the top, as well as depoſited at the bottom, and if the liquor is continued longer in the tub, the head will ſink, the bottom riſe, and a ſtrong fermentation take place, which it will be difficult to ſubdue, and which carries away the ſweets. Proceeding

it is common to mix a certain quantity of bitter apples, which add much to its quality for keeping; but unleſs great attention be obſerved in making, the labour is in vain; for cider requires much greater nicety of management than malt liquors. The apples are ſuffered to fall off the trees, or when thoroughly ripe, are picked with great care.* They are then put in heaps to ferment, and remain in that ſtate for three or four weeks; after they are ground, and the liquor is expreſſed, it is ſuffered to remain in tubs, from thirty to forty hours, when a ſcum, or froth, will riſe on the top; this they narrowly watch, and when it breaks, they rack for the firſt time into veſſels; after which, unremitting attention

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ceeding in your operation, tun into a hogſhead veſſel three pail-fulls or about fifteen gallons of this cider. This done, burn in the veſſel a ſtrong match made with nearly a quarter of a pound of ſtone brimſtone, ſtopping the bung as cloſe as poſſible, that none of the fume may eſcape. When the match is quite burnt out, open the bung, and immediately pour in four ounces of ſweet ſpirit of nitre. Put in the bung tight again, and roll the veſſel ſtrongly for near half an hour, by which time the ſmoke of the match will be deſtroyed and taken up by the liquor. Then ſet the veſſel in its place, fill it to within a finger's breadth of the top, but no higher, and let it ſtand till the month of February. In this month it will be coming fine, and muſt be watched attentively, and examined frequently by a peg in the barrel. When perfectly fine, it muſt be immediately drawn off and tunned into the ſame veſſel, after waſhing out the lee, burning alſo at this racking a ſmaller brimſtone match. It is directed to be drawn off *immediately* when quite fine, becauſe a very few hours produce an amazing alteration. It becomes turbid and foul, the ſecond fermentation is commenced, the ſweets fly off, and all the preceding trouble is rendered of no effect. R. P.

* I would here particularly caution all farmers poſſeſſing orchards, not to fall in with the uſual cuſtom of beating down the apples with ſticks.

Early in the autumn the buds for the ſucceeding year are formed, and being tender, are ſoon deſtroyed. To this violent attack on the branches may, in a great degree, be attributed the ſuppoſed incapacity of trees to bear fruit two ſucceſſive years.

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is neceſſary to prevent *exceſſive fermentation*, by early and frequent rackings.

Where the natural ſoil is not good of itſelf, ſuch manure ſhould be mixed with it as beſt ſuits its temper.

If the ſoil be a cold heavy clay, horſe-dung, coal, and ſoaper's aſhes, will bring it to a due temperament.

If it be light and hollow, marl, or mud from ponds and rivers, highway dirt mixed with lime, cow dung, &c. will mellow and inrich it; and if the ſpade be occaſionally employed to dig around, without wounding the roots, a fruit tree may be made to bear more abundantly, and to produce richer fruit.

Improvement of the heads is alſo of as much conſequence as of the roots; and this ſhould be particularly attended to in the early growth of apple trees. This is reckoned a very material part of tree huſbanding, for according as the head of the tree is firſt trained, ſo it will grow in a form more or leſs regular. Even in old orchards, judicious pruning has frequently made unfruitful trees bear in great abundance.

CHAPTER VIII.

WOODS, &c.

THIS diviſion does not abound with *oak*, but *elm* grows in hedges, and if their heads are not unfairly lopt, get to a ſize ſufficiently large for the keels of ſhips of war. For the moſt part they grow from the inchors or ſuckers of the neighbouring trees; probably ſome from ſeed. Few are planted from nurſeries, nor is there often any occaſion for it, elm being the ſpontaneous production of the country.

Their heads or ſide-branches are ſeldom mutilated, it being underſtood that the ſtem ſwells in proportion to the ſap that is drawn from the root to the head.

There are many coppices (chiefly of oak underwood) on the declivity of Quantock and other hills, but they are under no ſyſtem of management. Their value, at preſent, of twenty years growth, is from four to ten pounds per acre.

CHAPTER IX.

WASTES.

IN an Agricultural Survey of the county of Somerſet, it will naturally be expected that particular notice ſhould be taken of the foreſt of Exmoor; its vaſt extent, and capability of improvement, render it an object well worthy of attention.

This foreſt extends from North to South about eight miles, and from Eaſt to Weſt ten or twelve; containing, according to an accurate ſurvey lately made, about nineteen thouſand nine hundred acres. Nearly at the centre of this large tract of land is an eſtate called *Simonſbath*, incloſed, and conſiſting of about two hundred acres, with a dwelling-houſe, licenſed and frequented as an inn; and all offices belonging to it convenient for the management of the farm, and tranſacting the concerns of the foreſt. Here the foreſter has an annual ſale for the ſmall horſes that are bred on the ſurrounding hills; and here alſo, during the month of May, he meets the farmers from all the country round, who enter in his books the number of ſheep which are depaſtured with him, at the rate of five-pence per head. The ſmall horſes (in the whole upwards of four hundred) are not taken into better keeping, nor to more ſheltered grounds, during the ſevereſt winter. When the ſnow covers the foreſt to the depth of many feet, theſe hardy animals are ſeen in droves, traverſing the little vallies and ſheltered parts, gathering their ſcanty fare from the banks of rivulets and warm ſprings; but the ſheep are almoſt all driven off for the winter, in the months of November, December, and January, according as the ſeaſon is more or leſs ſevere.

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The river Barl runs adjoining to this eſtate, but reſigns its name on being joined by a ſmall ſtream, about two miles to the Eaſt, called the Ex. This ſtream takes its riſe in a low ſwampy ſpot of ground, about two miles North-Eaſt of Simonſbath, and runs to the other end of the foreſt; becomes, when joined by the Barl, a very conſiderable river, and in its paſſage to Exmouth, paſſes by Bampton, Tiverton, and Exeter, to which, and Exmouth, it ſeems to give name, as well as to this extenſive foreſt.

Into theſe rivers, Barl and Ex, a number of ſmall rivulets from every direction are conſtantly pouring their ſtreams; and, ſhould ever a general incloſure be attempted, offer an opportunity of watering ſome hundreds of acres. The water in theſe rivulets ſeems of the pureſt kind; it is not impregnated with any noxious mineral, and the ſoil, beyond any doubt, is favourable to vegetation.

On the ſummits of the hills, and eſpecially on the Weſt and North, are *ſwamps* of many acres extent. They are cut up as turf, at the rate of eight-pence or twelve-pence per thouſand, paid to the tenant of the foreſt, and would be an inexhauſtible ſtock of fuel to any inhabitants ſettling on the better part, as well as of black peat for burning lime, working iron, ſmelting ore, or any manufacture where fire is uſed.

The roads are in general, as might be expected in ſo large a tract of land without inhabitants, very bad, and in ſome places ſcarcely paſſable. But the whole abounds with materials to make them firm and comfortable, at an eaſy rate, and few bridges would be neceſſary.

Excepting a few willows and thorns by the ſides of the rivulets, not a tree or a buſh, out of Simonſbath eſtate, is to be ſeen on the whole foreſt; but plantations of moſt kinds need no more ſhelter, nor better ſoil, than is to be met with here.

here. Oak, firs, beech, and elm, would thrive in all the parts capable of tillage. And a very large proportion of the whole needs but the ſpirit, and the fortune, of ſome one or more of our wealthy gentlemen in England, whoſe attention, if turned this way, ſanctioned by the royal proprietor, would render the foreſt of Exmoor, in a few years, as fair a proſpect as the ſurrounding country; and not an uſeleſs and void ſpace, as it now is, in the map of the county of Somerſet. The term *uſeleſs*, however, may be ſaid by ſome to be miſapplied, when the quantity of ſheep is mentioned that is depaſtured on it. From the beſt information to be had, twenty-two thouſand are ſummered here, beſides the four hundred horſes beforementioned; but the race is ſo ſmall, and their value ſo trifling, that little profit accrues to the owner. Veins both of copper and iron have been diſcovered, that might be worked to advantage, conſidering how convenient the ſituation is for ſhipping off the produce; Porlock, Lymouth, and Combmarten, all ſea-ports, not being more than nine miles diſtant from the centre of the foreſt.

From each of thoſe places, and alſo from Ilfracombe and Barnſtable, veſſels are every week paſſing to Wales (where founderies have been long eſtabliſhed) in *ballaſt*. A large vein of lime-ſtone is known to paſs from Eaſt to Weſt near the centre of the foreſt, and proper ſtone is found for building on almoſt every part. And to compleat the whole, *ſlate* of a good quality has been dug up in large quantities not far from Simonſbath; and there is every reaſon to think it may be found in other places. Water is in plenty in every part, as beforementioned: and ſeveral market-towns are within a few miles of the foreſt. Large tracts of land are well adapted for the tillage of flax, which is known to thrive beſt on old or unvegetated ground, with a ſtrong deep ſoil.

The

The grain which thrives in the adjoining pariſhes would, no doubt, flouriſh here; and a ready ſale would be found in the neighbouring markets, or by being exported from the ports on the Briſtol channel.

The aſhes, ariſing from the weeds and other extraneous matter on the ſurface being burnt, mixed with lime, would be a firſt dreſſing, preparatory to a crop of turnips or corn.

From the produce of the crops would ariſe manure for future tillage; and what is now a barren waſte, might be made worth from five to twenty ſhillings per acre.

The plan for incloſures and buildings on the foreſt, I would recommend, is this: Let there be a ſmall town or village erected near the middle, ſuppoſe by Simonſbath-houſe, which ſhould form proper reſidences for artificers and huſbandmen, to be employed in building farm-houſes, and incloſing many a comfortable eſtate round them. From this centre town, or village, it would be eaſy to get a ſupply of proviſions and all other neceſſaries, as a butcher, baker, ſhopkeeper, &c. might be there ſettled. And, till other houſes or villages ſhould be built, labourers, artificers, and workmen, might find lodgings, proviſions, &c. in the bordering pariſhes, many of which, at this time, have more labourers than they can well employ. The method of fencing, cultivating, manuring, &c. would vary but little from the plan adopted on Mendip hills; and if proſecuted with vigour, would tend to leſſen the poor's rates, and would train up a riſing generation to care and induſtry, inſtead of theft and idleneſs.

Beſides Exmoor, there are ſeveral hundred acres of uncultivated land around Dunkry, and on Quantock and Brandon hills.

CHAPTER X.

IMPROVEMENTS.

EXCEPTING ſome peat turf on Blackdown, there is ſcarcely any fenny land to be met with. On ſoils any ways inclined to a weeping ſurface, great attention is paid to draining, which is done by digging the drains deep, filling part of them with clean picked ſtones, and covering with earth to the depth of ſix or eight inches. Where ſtones are ſcarce, ſhoulder trenching is practiſed, but theſe are liable to be filled up with the workings of the mole,† unleſs water conſtantly runs in them.* On the whole, perhaps *open* drains are preferable to *covered* on graſs land.

All tenants are reſtricted in their leaſes from paring and burning, and the practice is ſcarcely known.

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† The workings of the mole are a very ſlender objection to the uſe of ſhoulder trenching; for if the pipe be ſunk two feet deep in the clay, as it always ought to be, it is very rarely ſtopped; but if it ſhould ſo happen, the remedy is eaſy without much coſt or labour. In point of expence, it is three-fourths cheaper than ſtone draining, the average price of the former being three-pence per rope of twenty feet, of the latter one ſhilling. If the drain be cut eleven inches wide, the ſhoulder left four inches on each ſide of the pipe or channel, the inverted turf will have a firm bearing of eight parts in eleven; and it muſt be very rotten indeed, if the remainder three inches ever fall in. Of near a hundred acres adjoining each other, thus drained in the laſt three years, not one pipe has yet been ſtopped by the working of the mole or otherwiſe, though the lands are ſkirted by a large wood; and woods are very frequently a ſecure retreat and nurſery for that animal. R.P.

* The great ſkill of draining land conſiſts in cutting off the water at its ſource. One deep drain, judiciouſly placed, will frequently preclude the neceſſity of any other; in moſt inſtances, ſuch a drain ſhould be near that part of the declivity from which the ſprings iſſue. This depends on the poſition of the clayey ſubſtratum, and on the height of

CHAPTER XI.

LIVE STOCK.

THE ſtock of Taunton-Dean is principally neat cattle and ſheep; the former of the *North Devon*, the latter of the *Dorſet* breed, both excellent of their kind. Many graziers prefer the oxen bred in this diſtrict to thoſe of Barnſtaple, South-Molton, Torrington, &c. and the ſheep are conſidered as equally profitable with the Leiceſterſhire breed, which have been introduced, but do not gain ground.

The dairy farmers are accuſtomed to take in ſheep to keep during the winter, viz. from the beginning of October and November, to the 5th of April; the uſual prices are, for hog ſheep five ſhillings, and for ewes ſeven or eight ſhillings per head. The Dorſetſhire flocks are greatly improved by this cuſtom, and the price of keeping is on the advance.

Oxen are principally uſed, and are for the moſt part worked in yokes; ſome, however, are advocates for working ſingly in harneſs, and there can be no doubt but oxen may be uſed more to advantage this way than the other. The ſhape of an ox's breaſt is peculiarly ill calculated to bear the preſſure of the bow; and when worked hard in pairs, they

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of the reſervoir from whence the ſprings are fed. A judicious ſurvey of the adjacent land, and a liberal uſe of the borer, are neceſſary preliminaries to a cheap and effectual remedy for wet land, and there are few men in the kingdom poſſeſſed of equal ſkill in this department of agriculture with Mr. ELKINGTON, of Lancaſhire, whoſe fame is not confined to the county in which he lives, but is known and acknowledged in many parts of the kingdom.

are apt to get into a habit of leaning againſt each other, by which their progreſſive motion is much impeded. But of all methods, that which is practiſed in Portugal, Flanders, ſome part of Ireland, and other countries, namely, working them by the *head* and *horn*, is, in my opinion, the beſt.

I once ſaw on the farm of Lord SHANNON, near Cork in Ireland, three ploughs at work on a ſtrong ſoil, drawn each by a pair of oxen abreaſt, in a manner ſimilar to the application of horſes in Norfolk. The harneſs conſiſted of a long rein of untanned leather, which was fixed to the yoke, and then interſected the horns two or three times; after which it paſſed from the back of the horn over the forehead; to prevent the bruiſing of which, a *matting* was placed of ſufficient thickneſs to ſecure it from injury. In this way the animals *puſhed*, rather than *drew*, and with apparent eaſe ploughed an acre a day each without a driver, turning at land-end with as much docility as horſes. His lordſhip informed me, that two moderate-ſized oxen had, ſome time before, drawn home from the corn-field, (a diſtance of two miles) in a French ſkeleton cart, as many ſheaves of wheat as weighed upwards of three ton, and with no apparent extraordinary exertion.

SHEEP.

There are two ſorts of ſheep in this country, the one a native breed, without horns, well made, and covered with a thick fleece of wool, weighing in general ſeven or eight pounds; the other a ſmall horned ſheep, called Exmoor ſheep, bought, when hoggits, at South-Molton market, (April 12) at about ten ſhillings to fourteen ſhillings each, and fattened on turnips. The firſt is a valuable ſort, not much unlike the Leiceſter breed; and their fleeces may be conſidered as a moſt profitable article to the breeder, as they

they ſometimes reach even the weight of twelve pounds, and ſell at about ten-pence per pound. The ſale ewes are put to the ram about the latter end of July, and the ſtock ewes about a month after. Young rams are preferred, as it is ſuppoſed that old ones degenerate the quality and weight of their wool. The wethers of this breed, when two years old, and fatted on turnips, attain the weight of about twenty-five pounds per quarter; and being driven to Briſtol market (a diſtance of near ſixty miles) are ſold, without their fleece, in the months of May and June. *No folding practiſed.**

The ſecond ſort are kept on the foreſt of Exmoor, or the adjoining hills, for two or three years, merely for the annual profit of their fleeces; the weight of which ſeldom exceeds four pounds. They are fattened on turnips, and ſold without their wool. Weight of carcaſe from fourteen pounds to eighteen pounds per quarter.

Though theſe ſheep in appearance are vaſtly inferior to thoſe before deſcribed, being in their youth ſubject to a precarious ſubſiſtence on the foreſts and hills, it is the opinion of many ſenſible farmers that they are altogether as profitable ſtock.

OXEN.

The oxen of this country are large, well made, and beautiful animals. They are almoſt all red. They are yoked at three years old, and worked till they are five or ſix, when they are ſold to the graziers, at prices from ten pounds to twenty-two pounds each ox.

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* Is it not very extraordinary, that, in ſo hilly a country, this method of manuring land ſhould be almoſt unknown? Perhaps the weight of their fleeces may indiſpoſe the ſheep for lying too cloſe together, without creating the ſcab or ſome other diſorders.

CHAPTER XII.

RURAL ŒCONOMY.

THE price of labour, throughout the whole diſtrict, is nearly the ſame, viz. Men, through the year, one ſhilling per day and beer; women, for weeding and common work, ſix-pence per day; and for mattocking the wheat and hay-making, eight-pence per day. But contract labour is gaining ground daily; and in this way men will earn four-pence or ſix-pence per day more than at day-work.

PROVISIONS.

The price of proviſions is comparatively moderate. In Taunton the beſt beef, mutton, veal, and lamb, may be had by agreement with the butchers, at four-pence per pound the winter, and three-pence halfpenny the ſummer half year; turkey, three ſhillings and ſix-pence; gooſe, three ſhillings; ducks, two ſhillings and ſix-pence a couple; and fowls, two ſhillings; fiſh, at certain times, very cheap.

N. B. This was in 1794.

FUEL.

Coal is brought from Wales. The quality bad, and the price high. Wood gets ſcarcer and dearer every year.

CHAPTER XIII.

POLITICAL ŒCONOMY.

MANY attempts have been made by the principal wool-growers in this diſtrict to eſtabliſh an annual fair in or about the centre thereof, for the ſale of their wool; but hitherto the wool-buyers have rather ſet their faces againſt the meaſure:—this is the more extraordinary, as it muſt be apparent, to men converſant with this buſineſs, that the preſent mode of buying at the *farmers' houſes*, and giving indiſcriminately the ſame price for wool of very different qualities, is not only unjuſt, but manifeſtly injurious in its conſequences.

Were the fleece to fetch a price in proportion to its cleanneſs and fineneſs, (which is the caſe at eſtabliſhed fairs) the grower would be excited to care and attention in theſe reſpects.

MANUFACTURES.

About a century ago the woollen manufactures in the town of Taunton were in a very flouriſhing condition, and of courſe ſome of their benefits devolved to the agriculturiſt; but of late years the warmth of party at the elections of their repreſentatives in parliament has run ſo high, that it has not ſubſided from one election to another; by which means manufactures declined, and have been removed to Wellington and other places. So that it may fairly be inferred, that if the right of election to members in parliament has been injurious to any borough in the kingdom, it has been ſo to this.

There

There are, however, ſome hopes that trade may revive here, as the carding and ſpinning machinery has been lately introduced with conſiderable ſpirit and perſeverance. Some gentlemen in this town have lately formed a connection with the patentees poſſeſſing the ſecret of making cloth without either ſpinning or weaving; and the ſamples they have exhibited gave flattering hopes of ſucceſs.*

Though the trade of Taunton has declined, yet conſiderable manufactories are carried on at Wellington, Wiveliſcombe, and other places; and many thouſand hands are employed therein.

It cannot be totally foreign to our purpoſe to mention the ſalmon and *herring fiſhery* of Porlock, Minehead, and Watchet, which for ſome years paſt has been carried on to ſome conſiderable extent.

The lower claſſes of people have, in conſequence, obtained a cheap and wholſome food, particularly ſince the legiſlature has taken off the duty on ſalt uſed in curing the latter of theſe fiſh for *home conſumption*.

It were to be wiſhed that this fiſhery could be further promoted and encouraged, as it would be a means of furniſhing employ, during the winter, for thoſe ſailors who are engaged in the lime-ſtone, and culm trade, during the ſummer months.

Their frequent journies acroſs the Channel make them excellent pilots; and a hardy and ſkilful race of ſailors would occaſionally recruit that grand bulwark of the nation—the *Royal Navy*.

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* This plan of making cloth is now (1797) intirely abandoned—at leaſt, in this and the neighbouring county of Dorſet.

A RECAPITULATION

OF THE

HINTS FOR IMPROVEMENT,

ALREADY SUGGESTED IN THE PRECEDING PAGES,

WITH SOME

ADDITIONAL REMARKS.

1ſt. *Incloſe and cultivate all Waſte Lands ſuſceptible of Improvement, and divide and incloſe the Common Fields.*

VERY few gentlemen of landed property in this county have ſhewn that attention to the advancement of rural œconomy, or to the improvement of agriculture, which a ſcience of ſuch importance merits: this is the more extraordinary, as their own intereſt is ſo deeply involved, and as great examples have been ſhewn them by the nobility and gentry of other counties, and even by Majeſty itſelf.

It is no uncommon thing for untitled gentlemen to apprentice the younger branches of their family to trade, for five or ſeven years: And why not to agriculture? It cannot be becauſe the former is a more reſpectable occupation than the latter. I rather think, it is becauſe the acquirement of knowledge in the one is conſidered as more difficult than in the other. The general opinion ſeems to be, that any one may become a farmer: How egregiouſly are they miſtaken who think thus! I have known both, and

and can truly ſay, that more experience, care, aſſiduity, patience, and attention, are requiſite in a farmer, than in a tradeſman of any deſcription whatever.

The various cauſes which have operated to retard the progreſs of improvement, have been ſo fully ſtated before, that I ſhall only add, by way of encouragement, that the lands of Mendip hills, incloſed and cultivated in the courſe of the laſt thirty or forty years, are now worth nearly ten thouſand pounds per annum, which in their original ſtate did not exceed fifteen hundred pounds; and the advantages attending the incloſing and draining the low lands have been ſtill greater.

It was naturally expected that ſo great an acceſſion of arable land would introduce ſuch a plenty of corn (particularly of oats) in the adjacent markets, as would be accompanied with a proportionable diminution in price; but no ſuch conſequences have followed. The average price of oats for the laſt twenty years has not been leſs than eighteen ſhillings per quarter, *Wincheſter meaſure.* From this circumſtance, ſome have been fooliſh enough to queſtion the preſumed advantage, exultingly crying, "Is not corn dearer "than it was before? Are not the poor's rates equally high? "Where then are the happy conſequences derived from the "meaſure? Corn could not have been dearer, had no inclo-"ſure taken place." Hold! the price of every article varies according to the plenty or ſcarcity in market; and if the *home* ſupply be not ſufficient for the conſumption, other markets at a diſtance muſt be reſorted to. This would have been the caſe in the neighbourhood of Mendip hills, had no incloſure taken place. The counties of Wilts and Dorſet muſt have ſupplied the deficiency; and the *carriage* alone would have amounted to ten per cent.

2dly.

2dly. *Where Lands are ſituate on bleak and expoſed eminences, improve the climate by judicious and extenſive plantations.*

Though I am no advocate for ſtandard trees *in fences*, yet I think large and many plantations, in elevated ſituations, are not only ornamental, but profitable.

In this part of the kingdom, they ſhould be placed on the *South-weſt* ſide of a farm, as the wind from this quarter is moſt injurious. The *Scotch fir* will endure almoſt any ſeverity of climate, and the *beech* will reſiſt the deſtructive influence of the ſea-breeze; next to theſe, in point of hardineſs, are the *larch*, the *ſycamore*, the *aſh*, and the *birch*.

Such plantations may be placed at the angles of the large fields, or on ſpots too rocky and uneven to admit the plough. They ſhould be planted when young, and great care ſhould be taken to ſecure them from cattle; this is beſt done by a ſtone wall, for hedges are liable to be broken down by ſportſmen, and the work of many years may be deſtroyed in one night. A ſpirited planter would rather ſee cattle in a field of ripe corn, than in a new-made plantation. The damage in one inſtance is only partial, in the other it is nearly irreparable.

3dly. *Wherever marl, lime, or chalk, can be procured within a reaſonable diſtance, neglect not a liberal uſe thereof; and if deſtitute of ſuch reſources, be careful to make as much dung as poſſible by folding ſheep, houſing all ſorts of cattle, preſerving urine, collecting woollen rags, malt-combs, aſhes, horn ſhavings, bones, &c. &c.*

In the Northern part of the county of Somerſet, both marl and lime are in great abundance. The former is dug for about eight-pence per ton; and as it is the produce of the

the land to which it is applied, the carriage is very trifling. There can be, therefore, no excuſe for thoſe people who poſſeſs ſuch a treaſure, and yet forbear the uſe of it. Wonderful, however, as it may appear, I can aſſure my readers, that there are large tracts poſſeſſing this valuable manure *unwrought*; and in thoſe parts where it is applied, a repetition of it ſeldom takes place in leſs than twenty-five or thirty years; ſo that a liberal manuring does not exceed one ſhilling and ſix-pence per acre per annum, and for this, there are many inſtances of an almoſt immediate advance of rent of twenty ſhillings per acre.

Lime is ſtill more plentiful than *marl*, and, within a diſtance of ſix miles from the coal-pits, may be burnt for ſixteen or eighteen-pence per quarter. Its beneficial effects are univerſally known and acknowledged, and yet, ſtrange to relate, a ſecond application thereof ſeldom takes place in leſs than fifteen or twenty years: this reluctance may be attributed to the baneful effects, not of lime, but of an injudicious and exhauſting courſe of cropping.

Allowing that arable land may be injured by a too liberal uſe of this manure, it muſt be allowed, that with paſture no ſuch conſequences could enſue. Lime, like marl, kills all the coarſe ſour graſſes, brings ſweet and beautiful herbage, grateful to the palate of all cattle; it forms a kind of pan under the ſurface, by which the nutritious particles of dung are kept longer within the reach of the roots of plants, and is the means of making *ten* loads go as far as *twenty* when applied without a previous liming. Its activity is not abated in the courſe of three or four years; for if the land be broken up at that diſtance of time, its effects are as viſible in the ſubſequent crops of corn as if it were immediately applied. Happy then are thoſe farmers who poſſeſs ſuch advantages, and have the ſenſe and ſpirit to uſe them.

How

How would a Devonſhire farmer rejoice, were he to find limeſtone and fuel on the ſame eſtate. In that part of the kingdom, to the honour of the county be it ſpoken, they frequently ſend twenty miles for lime, and give four-pence and ſix-pence per buſhel at the kiln; and our wiſe-acres of Somerſet will ſcarcely beſtow carriage, were the landlord to give them the lime.

Where neither marl, lime, chalk, nor any other ſimilar ſubſtance dug from the bowels of the earth, can be procured, it behoves the farmer to be earneſtly ſolicitous to ſupply their places with either animal or vegetable manure. For this purpoſe, let him mow all his ſtubbles for litter, houſe his cattle during the winter months, fold his ſheep, grow a large portion of turnips, cabbages, vetches, rye, &c. keep a numerous ſtock, and be moderate in the extent of his corn land.* Great attention alſo ought to be paid to the management of dung when made, for by neglect great part of its ſtrength may be loſt. When properly ſoaked with urine, it ſhould be conveyed in its ſtrongeſt ſtate to the turnip land, or any other deſtined to receive it, in a *low waggon* inſtead of a cart. Theſe waggons ſhould be made to open at the ſides, and the contents ſhould be depoſited in large heaps of ten or fifteen loads each, with conſiderable elevation; and it ſhould be ſhook abroad with as much care as a gardener takes in making a cucumber-bed. By theſe means, a ſtrong fermentation is excited, and turning is unneceſſary, and perhaps injurious.

* Particular care ſhould alſo be taken to root out docks, thiſtles, and other pernicious plants, which, if allowed to bring their ſeeds to perfection will be diſperſed by the wind, to the infinite prejudice of all the ſurrounding lands; and the richer theſe lands are, the ſooner will theſe noxious weeds be propagated.

From

From theſe heaps, placed at ſuch diſtances as to manure *one* acre, it may be wheeled and ſpread for two-pence half-penny per load. In this method of hauling out dung, three waggons, four horſes, and five men are employed; namely, one waggon and two men loading in the yard, another waggon and two men unloading in the field, and the third waggon and driver going backward and forward.*

Wherever waſte earth, mud from ponds, highway dirt, aſhes, &c. &c. can be procured, compoſt heaps ſhould not be neglected; theſe are beſt calculated for paſture land.

Such a conduct will entitle the farmer to a great produce, and keep his land in good order; but all this will not do without

4thly. *A regular and well-conceived rotation of Crops.*

This I conſider as the moſt promiſing feature in good farming; and if it were generally adopted, would increaſe the produce of the land *threefold.*

A cuſtom prevails in this county, and indeed in moſt others, of ſubjecting a portion of land to continual tillage, and of interdicting the plough on all the other; this originated from improper conduct on the part of the tenant.—

* In the application of dung, the farmers of Somerſet begin at the wrong end. It is almoſt the general practice to manure for the *wheat* crop, whereby the wheat land is made foul, and though there is a great burthen of ſtraw, there is but little corn.

How much more beneficial would it be, to apply all the dung to potatoes, turnips, &c. and to the artificial graſſes, making wheat the laſt crop in the courſe? It is alſo uſual to manure the turnip land immediately before ſowing; but I have experienced great advantage, and more decided certainty of a crop, by manuring in autumn on the ſtubbles, ploughing the ſame in, on a fleet furrow, and letting it remain in that ſtate during the winter months.

No

No ſooner is the plough put into his hand, than he uſes it without mercy, harraſſing the land with conſtant crops, till its fertility is intirely exhauſted.

The landlord, alarmed at theſe baneful effects, endeavours to counteract the progreſs by reſtraining clauſes, and theſe are indiſcriminately applied both to *good* and *bad* farmers; and are conſidered by the one as *highly neceſſary*, and by the other as *exceedingly grievous*.

Were we to advert to the general practice of the tenants, we ſhould be led to juſtify the caution of the landlord; but were we to calculate the loſs yearly incurred by ſuch reſtrictions, we ſhould have cauſe to regret that the covetouſneſs of the occupier ſhould have rendered neceſſary a conduct ſo inimical to the general weal of the kingdom.

In reſpect to low meadow land, or very rich paſture, there can be but one opinion, viz. *that it ſhould ſo remain*; but it muſt be allowed, that there are in this kingdom large tracts of old graſs land, *moſſy*, *hide-bound*, and, comparatively ſpeaking, *unproductive*. Land of this deſcription might be greatly improved by *ploughing*; and if the following courſe of crops, and mode of manuring, were adopted, would be left, at the end of three years, of double the value it was in the ſward.

ON LIGHT LAND.

1ſt. Peaſe or oats on the ley.

2d. Vetches fed off, and the land manured with lime or the ſheepfold, preparatory to turnips.

3d. Barley and artificial graſs ſeeds.

In which, let it remain till the graſſes fail, and the land again becomes moſſy; then renew the courſe.

ON HEAVY LAND.

1ſt. Beans on the ley.

2d. Spring fallow, well manured, and cabbages.*

3d. Oats and artificial graſſes.

Then remain as before.

The foregoing courſes of cropping cannot poſſibly injure the land, and by them fallowing is excluded, which (unleſs in particular inſtances, ſuch as great foulneſs, or dearth of manure) I do not think neceſſary.

5thly. *Enlarge the upland corn farms; erect proper buildings and conveniencies for the ſhelter of the cattle in the winter months, thereby inviting ſubſtantial and well-informed farmers, of more enlightened countries, to ſettle upon them.*

I have before ſtated the advantages of large corn farms, buildings, &c. and ſhall, therefore, only add, that nothing ſo much contributes to the progreſs of good huſbandry as example. One good farmer in a pariſh (particularly if he take no pains to make proſelytes) will in a few years convert all the reſt; the ſuperiority of his crops, the advancing fertility of his land, the thriving ſtate of his cattle, the abundance of manure, all plead daily in favour of his ſyſtem, and will, in the end, produce conviction even in the moſt bigoted mind.

* The cultivation of cabbages on *heavy* land cannot be too ſtrongly recommended. It puts the clay land farmer on a level with his neighbours occupying light land, and as a farther encouragement, I can aſſert, from experiments repeatedly made, that *two* tons of cabbages are equal to *three* of turnips, that they are leſs ſubject to injury from froſt, and that the expences of cultivation, compared with turnips, do not exceed five ſhillings per acre.

I know

I know no method by which general improvement can be more promoted, than by diſperſing the farmers of thoſe counties, whoſe practices are held in the higheſt eſtimation among thoſe parts of the kingdom, on which the light of good huſbandry has never ſhone. This would introduce into general practice the Turnip Huſbandry of the Eaſtern diſtricts, with all its concomitant advantages.

The ſoil and climate of the county of Somerſet is peculiarly well adapted to the cultivation of this root; and were the paſture lands leſs rich and productive, neceſſity would oblige the farmer to have recourſe to this root for winter ſubſiſtence. At preſent, the quantity of land devoted to this purpoſe is trifling indeed, and in moſt inſtances the hoe is never uſed, nor are turnips conſumed with any degree of œconomy.

Though the rent of the land in the elevated parts of this county may be conſidered high, there are advantages which more than compenſate; theſe are, its rich and productive quality in all ſeaſons, the facility with which it may be ploughed, the eaſy acceſs to marl, limeſtone, and coal, goodneſs of roads, vicinity to markets; and laſtly, the high price of produce. The laſt-mentioned advantage is alone ſufficient to induce a reſidence; for it frequently happens that corn ſells twenty per cent. dearer here than it does in the Eaſtern counties.

6thly. *Improve the Stock by a judicious ſelection of Males and Females for breeding; and be particularly careful to choose a Male handsome in those points wherein the Female may be deficient.*

In this department of huſbandry, the farmers of Somerſet are very inattentive, though they all acknowledge that the proper ſtocking of a farm is of the higheſt importance.

In confirmation of this, I need only inform my readers, that few inſtances can be produced of a bull being ſold for more than fifteen pounds, or a ram for more than five pounds. As to ſtallions, there are but few bred; the mares are ſerved by horſes brought every ſpring from the Northern counties, and without this croſs the breed would be contemptible indeed.*

It is not within the compaſs of my undertaking to enter upon this article at large; ſuffice it to ſay, that it is a thing of great conſequence to the huſbandman; and the only caution to be obſerved, when he introduces an alien ſtock by way of improvement, is, not *to change from rich land to poor*, or *from a warm to a cold climate*.

7thly. *Leſſen the number of Horses, and encourage the use of Oxen.*

It is univerſally acknowledged that too great a portion of land is employed in raiſing food for horſes; and it is alſo as certain, that a draught horſe, if well fed and kept in houſe thirty weeks of the year, will conſume twelve quarters of corn, and thirty cwt. of hay, beſide graſs; this may be conſidered as the produce of four or five acres of land, which, under common cultivation, would maintain nearly three men. If, therefore, the riches of a country conſiſt in the extent of its population, and that population can only be advanced by increaſing the means of ſubſiſtence, it follows, that every man who keeps an unneceſſary horſe is an enemy to his country, by retarding the increaſe of his own ſpecies.

* A tax on ſtallions and bulls would encourage the attentive breeder, by increaſing his cuſtom, and enlarging his price, and would leſſen the number of ill-bred and ill-ſhaped males of each ſpecies.

Navigable

Navigable canals would alſo greatly tend to reduce the number of horſes, and, wherever the ſituation is ſuch as to admit of them, ſhould be encouraged.

To a ſpirit of ſpeculation and gambling the country is indebted for the canals now cutting; but though the rage has ſubſided, yet, I truſt, the probable advantages will inſpire the preſent adventurers with ſufficient ſpirit and vigour to proſecute their undertaking to its full completion.

The county is rich, populous, and abounds with all thoſe heavy articles of traffick, which will render water conveyance profitable to the ſubſcribers, and beneficial to the public; and if the cuts be made of ſmall dimenſions, the coſt will be trifling; the conſumption of land, and the invaſion of private property, inſignificant: ſuch a canal could only be conſidered as a large ditch, and might be ſo multiplied as to anſwer the purpoſe of turnpike-roads.

8thly. *Amend the Publick Roads.**

Nothing ſo much contributes to the improvement of a county, as good roads; before the eſtabliſhment of turnpikes, many parts of this county were ſcarcely acceſſible.

Seven or eight horſes were neceſſary to draw a waggon loaded with *two* tons weight, and ſcarcely ever exceeded the diſtance of twenty miles a day; now, the ſame number of horſes will draw *five* tons, and travel thirty or forty miles. This is an immenſe ſaving of labour, and yet the eſtabliſh-

* In ſome parts of the kingdom road clubs are eſtabliſhed. Theſe are very good inſtitutions, and ought to be adopted in every county. Rules and orders of ſuch clubs may be ſeen in the appendix to the Worceſterſhire report. The reluctance which individuals ſhew to the preferring indictments, renders ſuch an aſſociation peculiarly neceſſary.

ment of ſuch roads was as unpopular, and the probable benefit as little credited, as thoſe of canals are now. The money collected at the gates was conſidered as a burthen, and the publick were for ſome time loaded with an extra charge for carriage. This, however, did not laſt long, for in the courſe of a few years, a diminution in the price of carriage univerſally took place, and it has gradually fallen from that time to this.

Before the turnpike-roads were eſtabliſhed, coal was carried on horſes' backs to the diſtance of fifteen or twenty miles from the collieries; each horſe carried about two hundred and a half weight. Now one horſe, with a light cart, will draw ten hundred weight, or four times more than the horſe could carry: Can an inſignificant toll be put in competition with this ſaving?

In reſpect to private roads, I would recommend a repeal of the law compelling ſtatute labour, and changing the ſame to a compoſition in money.

Whenever a farmer is called forth to perform ſtatute-labour, he goes to it with reluctance, and conſiders it as a legal burthen from which he derives no benefit. His ſervant and his horſes ſeem to partake of the torpor of the maſter. The utmoſt exertion of the ſurveyor cannot rouſe them, and the labour performed is ſcarcely *half* what it ought to be.

This would not be the caſe, were the ſurveyor to receive in money the highway tax; he could then employ ſuch workmen as would do him juſtice, or, if they were indolent or inſolent, he could diſmiſs them.

9thly. *Encourage*

5thly. *Encourage the uſe of ſuch ploughs, and other inſtruments, as are beſt calculated to expedite work and do it well.*

Admitting that there are only one hundred and fifty thouſand acres of tillage in the whole county, and that the ſame are ploughed on an average twice; allowing alſo that one-third of this is of ſo hilly a nature that a wheel plough cannot be uſed to advantage, there will remain one hundred thouſand acres capable of being turned with the *double-furrow* plough.

For the ſake of argument, let it be alſo admitted that three horſes, a man, and a boy, with the common plough of the country, will turn an acre a day, and that the double plough with four horſes, and the ſame number of attendants, will turn two acres. The number of acres will of conſequence be ploughed in half the time, and the difference in expence cannot exceed two ſhillings per day. Here then might be a ſaving of twenty thouſand pounds per annum in this article alone, beſides the ineſtimable advantage of expediting work at certain ſeaſons.

Some may doubt the poſſibility of making the double plough ſo generally uſeful; but I can truly ſay, I have never yet found an inſtance where it could not be worked to advantage; and it is well known, that, in the various trials made under the auſpices of the Bath Society, on lands of the moſt *difficult nature*, the double plough has always gained the prize.

In the counties of Wilts and Dorſet, where three large and powerful horſes are put to a ſingle plough, the ſaving by ſuch an inſtrument would be immenſe; and this I can confirm, by the teſtimony of ſome eminent farmers of the firſt-named

named county, who, in conſequence of my recommendation, have introduced them on their reſpective farms, with great profit and ſucceſs.

10thly. *Sow early in expoſed and cold ſituations, and be particularly careful not to plough or harrow in wet weather.*

The neceſſity of this caution is ſo well known to all practical farmers, that I need not, I truſt, enforce it.

11th. *Deſtroy Rats and Mice.*

The depredations of theſe vermin are too important to be overlooked. A ſenſible farmer of my acquaintance thinks, that by them and birds a twentieth part of the corn of the kingdom is devoured. Corn in barns they have free acceſs to, and it is very difficult to keep the mows on ſtadles free from them. If they are not brought in from the corn field, a ſtick, a rake, a pike, or any other body careleſsly placed againſt the mow, will introduce them.

Deſtructive, therefore, as they muſt be, it behoves all farmers to make their ſlaughter a general concern, and it might be done by a pariſh rate.

12th. *Introduce Threſhing Machines.**

Theſe are common in the Northern parts of this kingdom, and in Scotland; and from the accounts I have received, anſwer the purpoſe, threſhing the corn both well and expeditiouſly. There appears to be but one objection,‡ which

* A ſimple engine for weighing cattle *alive* is alſo a deſirable thing.

‡ Query. Is the ſtraw equally palatable to the cattle?

is,

is, the leſſening of *in-door* labour in the winter months. As a ſubſtitute for which, let the farmer houſe all his cattle, drain his wet lands, collect manure, &c. and employ the barn-men in theſe occupations.

13th. *Let all Unmalted Corn be ſold by weight.*

The different meaſures of this kingdom, and the confuſion incident thereto, were ſo notorious, that great pains have been taken by the houſes of parliament to introduce one general ſtandard meaſure, and the acts of the legiſlature have been followed up by the moſt active exertions of the magiſtrate.

By theſe means, the Wincheſter meaſure is pretty general, and in reſpect to this county I may add, to the *great benefit of the seller*, and the *great loss of the purchaser*. The calculation in reſpect to the comparative price between the old and new meaſure, was formed on the difference between eight and nine gallons, but this is erroneous; the old meaſure of the county was not leſs than nine gallons and a half, and in ſome inſtances ten gallons, ſo that the buyer gives ſeven or eight per cent. more than he ought to give; and I humbly think that *weight* would be a better ſtandard, as the drier and plumper the corn is, the heavier it weighs.

14th. *Grant Long Leaſes.*

All farmers who have ſpirit enough to improve their eſtates, ſhould have ſome ſecurity for being reimburſed the expence. Where a man's tenure is precarious, and ſubject to the whim and caprice of a landlord, little improvement can be expected. Upon unimproved farms, ſuch as waſtes, commons, &c. newly incloſed, a conſiderable expenditure is neceſſary

neceſſary to bring them into order. Here the tenant ſhould have a leaſe of twenty-one years, and the rent to advance at fixed periods; for inſtance, ſuppoſe the land in its original ſtate to be worth, when incloſed and accompanied with neceſſary buildings, five ſhillings per acre; this rent, if the tenant is to pay all expences of cultivation, ſhould continue ſeven years; at the expiration of which time, he ſhould be advanced to ten ſhillings, and at the end of fourteen years, to fifteen ſhillings per acre.

Or the following method might be adopted; let the landlord pay all expences of cultivation, manuring, &c. and charge five per cent. on the expenditure, allowing the periodical advance to be proportionably leſs. At all events, the intereſt of the tenant ſhould be better preſerved than at preſent; but this is ſo copious a ſubject, that I muſt forbear entering into it, not doubting but it will be ably treated by ſome of your numerous correſpondents.

15th. *Sow more Sainfoin on the ſtone-braſh lands, and on all other ſoils congenial thereto.*

16th. *Roll all Grass Land once a year at leaſt, with a heavy roller, and abſtain from ploughing your Arable Land in wet weather.*

17th. *Set all Pease and Beans in lines from North to South, and hoe them twice at leaſt.*

18th. *Devote at leaſt one quarter part of your Turnip Land to the Ruta-Baga or Swediſh Turnip.*

This root will bear the utmoſt ſeverity of weather, and will remain ſound when the other turnips are all rotten. The ſeed ſhould be ſown the beginning of May, and treated in other reſpects like the common turnip. The root does not attain the ſize, but is much weightier, and conſequently more nutritious.

19th. As in every point of view this county appears from its ſoil and ſituation to be better adapted to *graſs* than arable, it deſerves enquiry, whether ſtock could not profitably be kept on *graſs land alone*, without the aid of winter roots. The argument for ploughing ariſes from a wiſh of having ſtraw to make manure, and turnips to ſupport ſtock in the winter ſeaſon. But whenever the plough is put into the hand of the generality of farmers, the land is from that time in a ſtate of degradation, and its value reduced at leaſt 10s. per acre, in compariſon with contiguous graſs land.

Graſs, therefore, ſhould be conſidered as the ultimate improvement of land in the Weſtern part of the county of Somerſet.

CONCLUSION.

THIS county does not raiſe grain ſufficient for its conſumption, nor are the climate and ſoil of many parts thereof favourable to corn farming; yet, were all the improvements before ſuggeſted to take place, there cannot be a doubt but that the produce of the ſoil might be increaſed at leaſt one-third.

The advanced rent which might be produced by draining the marſhes, and by incloſing and cultivating the common fields and waſte lands, may, according to the moſt moderate calculation, be thus eſtimated:

No. of Acres.	*Deſcription.*	*Increaſed Rent.*	*Total Increaſe.*
		£. s. d.	£.
30,000	Marſh lands	0 15 0	22,500
20,000	Common field	0 5 0	5,000
65,000	Uncultivated waſte	0 5 0	16,250 per ann.
			43,750

To

To which may be added, a capacity of improvement in the arable and paſture lands *incloſed*, of at leaſt five ſhillings per acre, amounting to more than 213,000l. per annum, which increaſed rent, at thirty years purchaſe, would exceed ſix millions.

Theſe bleſſed effects would be the natural conſequence of that ſpirit of induſtry which publick encouragement would excite, would add greatly to the capital of the nation, and be much more valuable than any foreign conqueſt of treble the amount. Would to God that nations would learn wiſdom, and inſtead of coveting diſtant territory, improve to the utmoſt *that* which they poſſeſs!

IT now only remains for me to apologize to the honourable Board, for the deſultory and procraſtinated way in which this Report has been executed.

The various publick as well as private buſineſs, in which I was engaged prior to my undertaking this ſurvey, could not be diſpenſed with; I have, therefore, only had it in my power to ſnatch an occaſional hour from other numerous avocations. Had not my general knowledge of the county, and particularly of the Northern and Middle diſtricts, enabled me to write on its practices without a perſonal ſurvey, I muſt have declined the undertaking. As it is, I have felt, and ſtill feel, a conſiderable portion of regret that I did not reſign the appointment, as the Board might have then ſelected ſome perſon poſſeſſed not only of more leiſure but of ſuperior ability.

With

With a ſincere wiſh that the eſtabliſhment of an Agricultural Board may be attended with all thoſe happy conſequences, which its moſt ſanguine ſupporters can deſire,

I remain,

Their moſt humble ſervant,

J. BILLINGSLEY.

Aſhwick-Grove, Oct. 4th, 1794.

ERRATA.

Page 16, line 6, for *Wirton* read *Weſton*
—— 60, l. 5, f. *qualifying* r. *qualitying*
—— 122, l. 18, f. *thirteen cwt.* r. *one cwt. three quarters*
—— 202, l. 3 from the bottom, f. *irregation* r. *irrigation*
—— 216, l. 6, f. 1*l.* 4*s.* r. 4*s.*
—— 232, l. 3 from the bottom, f. *becauſe* r. *become*
—— 252, l. 8 from the bottom, f. *diſtinguſh* r. *diſtinguiſh*
—— 263, l. 9, f. *o* r. *of.*

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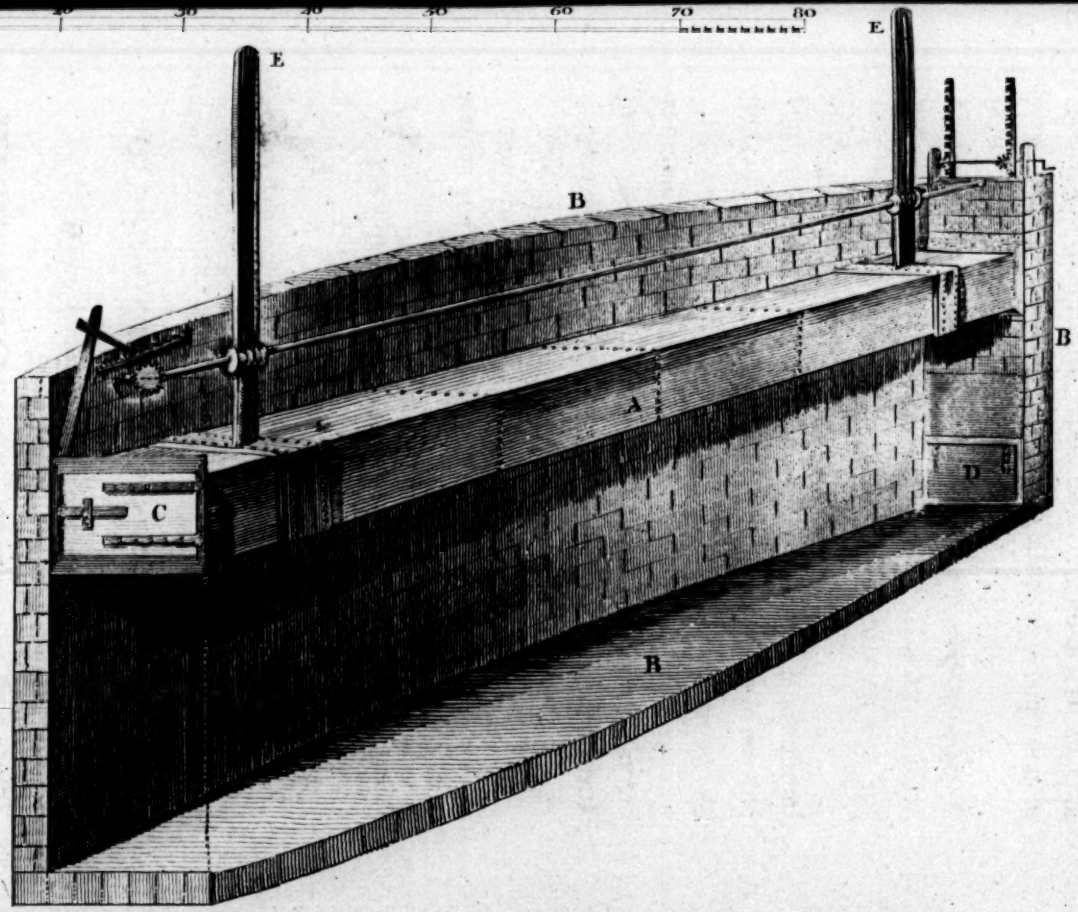
MUSEUM

Vol.II. Pl.XV.



A DESCRIPTION OF

ROBERT WELDON's

HYDROSTATICK or CAISSON-LOCK,

Which is now building and nearly completed

On the SOMERSET COAL-CANAL near COOMB-HAY,

ABOUT THREE MILES FROM BATH.

AS many impediments arise in the progress of Canals; *First*, From a want of water to supply locks in dry seasons and elevated situations;

2*dly*. In crossing valleys by expensive aqueducts;

3*dly*. Tunneling through hills and high grounds;

And 4*thly*, The great delay occasioned by passing many locks where the unevenness of the country renders it unfavourable for canals;

R. WELDON, after having devoted many years study and indefatigable labour to avoid these difficulties, and to accomplish this great object, now offers to the publick a description of his Hydrostatick or Caisson Lock.

The drawing annexed presents a perspective view of the machine or contrivance by which the conveyance is to be effected, and of the inside of a lock, or pound, in which it is immersed.

A. consists of a trunk or caisson made of wood, and of dimensions equal to the reception of a commercial vessel of twenty

twenty-five or thirty tons burthen, at each end thereof is a door way, which the boat, &c. is to be floated through into or out of the caiſſon, and being received therein, and the door then ſhut, with a given quantity of water to float the boat, and counterpoiſe the caiſſon, ſo as to make it the ſame ſpecifick gravity with the water in which it is immerſed; it may then be eaſily raiſed or lowered at pleaſure, either by deſtroying the equilibrium, by admitting a ſmall quantity of water into the caiſſon through a valve conſtructed for that purpoſe, or by diſcharging a ſimilar quantity through another valve, or by chains and rollers, as in the drawing annexed, from one level to another, and the boat be floated from the caiſſon into the canal; the water in the caiſſon and that in the canal having both the ſame level whilſt the conveyance is effected.

B. is one ſide the bottom, and one end of the lock or ciſtern in which the caiſſon is immerſed, which is built of free-ſtone, and of the following dimenſions, viz. from the foundation to the top of the wall ſixty-ſix feet, length from out to out eighty-eight feet, width in the middle twenty feet, ditto at each end eleven feet and half, and the perpendicular height from the ſurface of the lower canal to that of the upper canal forty-ſix feet.

C. The door at each end of the caiſſon, which ſhuts into a rabbet, the frame projecting about three inches beyond the door when ſhut.

D. An aperture at each end of the ciſtern or lock, communicating with the upper and lower canal, with a ſliding door or gate, which are counterpoiſed like a common ſaſh, and wound up by wheel and pinion, to receive the end of the caiſſon, to which it is cloſely fitted at the time the boat is received or delivered.

R. WELDON,

R. WELDON, having devoted the whole of his time to the ſuperintendance of this great work ſince the commencement of it, he hopes will be a ſufficient excuſe for not having the whole hiſtory of it ready for the preſs, but flatters himſelf to have it complete to lay before the publick (with engravings and references to every part diſtinct, and carefully copied from the original drawings after which the preſent machine is conſtructed) in a few months.

Extract from an Account of a Proviſion made upon an Incloſure, for ſupplying the Poor with Fuel.

(Communicated by EDWARD PARRY, eſq.)

UPON the incloſure of the pariſh of Little-Dunham, in Norfolk, in the year 1794, being Lord of the Manor, I got a clauſe inſerted, directing the Commiſſioners to ſet out a parcel of land to be called *the Poor's Eſtate*, to be veſted in the lord of the manor, rector, churchwardens, and overſeers of the poor for the time being, and to be let by them for twenty-one years on leaſe; the rents and profits to be laid out by them in fuel, to be delivered at the cottages of the poor, in ſuch proportions as the truſtees ſhould think proper.

Although the prejudices of the poor, againſt the incloſure, were very great before it took place; the moment they ſaw the land incloſed, and let as *the poor's eſtate* for twenty-one years by auction, at the rate of 50l. a year, (although only eſtimated by the Commiſſioners at 20l. a year) they were highly gratified; and have indeed great reaſon to rejoice, as they will now be moſt amply ſupplied with that great comfort

ort of life. This was ſo evident, that ſome neighbouring incloſures have followed the example, and it appears to me to be adviſeable that ſuch a plan ſhould be generally made known.

The firſt idea was to ſell the land, and place the money in the publick funds, in order to produce a larger income; but I found that was not underſtood by the poor: they ſaid they might at any time be deprived of the money, and they had no intereſt in the land incloſed; whereas, in the mode purſued, they conſidered themſelves as having a permanent and improveable eſtate, which their children would inherit. Theſe prejudices are valuable; as in their conſequences they produce, if attended to, induſtry and content.

I have had occaſion to obſerve, as to fuel, which is certainly an important article to the poor, that where there are commons, the ideal advantage of cutting flags, peat, or whins, often cauſes a poor man to ſpend more time after ſuch fuel, than, if he reckoned his labour, would purchaſe for him double the quantity of good firing.

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